Funding Proposal

SAP008: Extended Community Climate Change Project-Flood (ECCCP-Flood)

Bangladesh | Palli Karma-Sahayak Foundation (PKSF) | Decision B.24/09

4 December 2019



Simplified Approval Process **Funding Proposal**

Project/Programme title:	Extended Community Climate Change Project-Flood (ECCCP-Flood)
Country(ies):	Bangladesh
National Designated Authority(ies):	Economic Relations Division, Ministry of Finance, The People's Republic of Bangladesh
Accredited Entity:	Palli Karma-Sahayak Foundation (PKSF).
Date of first submission:	[2018/01/16]
Date of current submission/ version number	[<u>2019/06/24]</u>
If available, indicate GCF code:	This code is assigned to each project upon first submission of a Concept Note Funding Proposal and remains the same throughout the proposal review prov

e or Funding Proposal and remains the same throughout the proposal review process. If you have submitted this project/programme previously please indicate the GCF code here.





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Section A PROJECT / PROGRAMMESUMMARY

This section highlights some of the project's or programme's information for ease of access and concise explanation of the funding proposal.

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Section C FINANCING INFORMATION

This section explains the financial instrument(s) and amount of funding requested from the GCF as well as co-financing leveraged for the project/programme. It also includes justification for requesting GCF funding and exit strategy.

Section D LOGIC FRAMEWORK, AND MONITORING, REPORTING AND EVALUATION This section includes the logic framework for the project/programme in accordance with the GCF Results Management Framework and Performance Measurement Framework, and gives an overview of the monitoring, reporting and evaluation arrangements for the proposed project/programme.

Section E **EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA** This section provides an overview of the expected alignment of the projects/programme with the GCF investment criteria: impact potential, paradigm shift, sustainable development, needs of recipients, country ownership, and efficiency and effectiveness.

Section F **ANNEXES** This section provides a list ofmandatorydocuments that should be submitted with the funding proposal as well as optional documents and references as deemed necessary to supplement the information provided in the funding proposal.



Note to accredited entities on the use of the SAP funding proposal template

- The Simplified Approval Process Pilot Scheme (SAP) supports projects and programmes with a GCF contribution of up to USD 10 million with minimal to no environmental and social risks. Projects and programmes are eligible for SAP if they are ready for scaling up and have the potential for transformation, promoting a paradigm shift to low-emission and climate-resilient development.
- This template is for the SAP funding proposals and is different from the funding proposal template under the standard project and programme cycle. Distinctive features of the SAP funding proposal template are:
 - Simpler documents: key documents have been simplified, and presented in a single, up-front list;
 Fewer pages: A shorter form with significantly fewer pages. The total length of funding proposals
 - Fewer pages. A shorter form with significantly fewer pages. The total length of funding proposals should not exceed 20 pages;
 Environ form filling former structure and allower pages. The total length of funding proposals are should be allower pages.
 - *Easier form-filling*: fewer questions and clearer guidance allows more concise and succinct responses for each sub-section, avoiding duplication of information.
- Accredited entities can either directly incorporate information into this proposal, or provide summary information in the proposal with cross-reference to other funding proposal documents such as project appraisal document, pre-feasibility studies, term sheet, legal due diligence report, etc.
- Submitted SAP Pilot Scheme funding proposals will be disclosed simultaneously with submission to the Board, subject to the redaction of any information which may not be disclosed pursuant to the <u>GCF</u> <u>Information Disclosure Policy</u>.

Please submit the completed form to: fundingproposal@gcfund.org Please use the following name convention for the file name: "SAP-FP-[PKSF]-[2019/05/01]"



A. PROJECT/PROGRAMME SUMMARY						
A.1. Has this FP been subm	Yes 🛛 No 🗆					
A.2. Is the Environmental	Yes 🛛 No 🗆					
A 3 Project or	Project	A 4 Public or	Public sector			
programme	□ Programme	private sector	□ Private sector			
A.5. Result area(s)	Mitigation: Reduced emissions from: Energy access and power generation Low emission transport Buildings, cities and industries and appliances Forestry and land use Adaptation: Increased resilience of: Most vulnerable people and communities, including women and girls Health and well-being, and food and water security Infrastructure and built environment Ecosystem and ecosystem services					
A.6. Total investment (GCF + co-finance)	<u>13.33</u> (million USD)	9.68 (million USD)				
A.8. Type of financial instrument requested for the GCF funding	\boxtimes Grant \square Loan $^1\square$ Equity \square Guarantees \square Others:					
A.9. Division of GCF funding by thematic funding window (if applicable)	USD or% Mitigation USD or _100 % Adaptation					
A.10. Implementationperiod	4 years (December, 2019 to November, 2023)					
A.11. Total project/ programme lifespan	10YearsA.12. Expected date of internal approval4/15/2018					
A.13. Executing Entity information	PKSF is the executing entity (EE) for the project.					
A.14. Scalability and potential for transformation (Eligibility for SAP, max. 50 words)						



- 1. The project expects that 90,000 beneficiaries will enhance their resilience to climate change through adopting and practicing climate adaptive activities. They will be able to identify the impacts of climate change on their lives and livelihoods and prepare plan for addressing those impacts through 1,000 climate change adaptation groups (CCAG). 45,000 targeted beneficiaries in flood prone areas will be able to protect their homesteads and household resources from flooding through raising homestead plinths and re-construction of these houses. They will cultivate vegetables round the year on the raised plinths. Raised plinths will also be used as flood shelter during flood. 2500 (500 tube wells i.e. 5 beneficiaries per tube well) targeted households covering 11250 beneficiaries will adopt and practice safe drinking water technology i.e. shallow tube wells on raised plinths in flood prone areas. In addition, 2810 households covering 12645 beneficiaries be provided with climate resilient sanitary toilets. Ninety thousand (90,000) targeted beneficiaries will adopt and practice since soft of the states will adopt and practice soft of the senticities will adopt and practice. Ninety thousand (90,000) targeted beneficiaries will adopt and practice climate resilient livelihood options including cultivation of stress tolerant crop varieties and goat/sheep rearing in slatted house.
- 2. The proposed activities are selected based on the experience of earlier implemented community climate change project (CCCP). While implementing the CCCP, PMU staffs have frequently visited the project areas and found these activities effective in terms of increasing resilience of the vulnerable communities. In addition, mid-term and final evaluation by independent consultants, Aide Memoire bythe World Bank (the fiduciary manager of the project) have rated these activities satisfactory and effective. Hence Extended CCCP has chosen these activities. As the activities are demand-driven and found effective, it is expected that these activities have high potential to be scaled up for creating transformation.

A.15. Project/Programme rationale, objectives and approach (max. 250 words)



- 3. Climate rationale of the project/programme: The impacts of climate change in Bangladesh are visible. It has altered the nature and magnitudes of natural disasters like flood, flash flood, salinity, tidal surge, drought etc. Both frequency and intensity of these disasters are increasing. The scientists argued that these will be manifold in the future climate regime (details in section B1). The poor community will be hit the hardest. The women and children will be affected harder than any other groups of people in the community due to their distinctive role and low capacity to cope with that. The poor and marginalized community living in flood prone areas generally depends for livelihood on agriculture including crops, livestock, poultry, and fisheries etc. which are highly sensitive to climate change. It affects shelter, water availability and sanitation etc. The proposed project will make sure the resilient shelter and livelihood will ensure safe drinking water and sanitation.
- 4. *Purpose and activities of the project/programme:* The goal of the project is to increase resilience of the poor, marginalized and climate vulnerable communities towards the adverse effects of climate change in flood prone areas of Bangladesh. Major activities are cluster based homestead plinth raise, reconstruction of resilient houses on raised plinths, construction of climate resilient sanitary latrines, installation of tube wells, goat/sheep rearing in slatted house, climate resilient crop cultivation etc.
- 5. *Climate impacts of the project/programme:* Bangladesh Bureau of Statistics (BBS) carried out the impacts of various disasters for the period of 2009-2014. The report shows that about 42% HHsof Rangpur division (which is the main working area) were affected by flood whereas national average is 34.48%. Over this period, 26.93% of the households did not have any work due to flood, meaning they did not earn money for their livelihood. It is also important to note that 10.62% of the households did not have work for 8 to 15 days and 9.39% HHs did not have work for 16 to 30 days due to climate change related extremes.
- 6. *Rationale for use of GCF funding:* Climate change is an additional threat for the socio-economic development of Bangladesh. The country is in the process of switching from an LDC to a lower middle income country by 2025, which requires huge investment in regular development intervention. Hence, the country is not in a position to invest additional resources for shocks like climate change for which the country is not responsible. So, GCF funding is important to address the additional threat from climate change to enhance resilience of the climate vulnerable people.
- 7. GCF's involvement is critical in two ways: (i) climate change threat and long term projections. Flood will likely increase in frequency and intensity. It will require additional investment to reduce the impacts of and vulnerabilities to these climate variability and extreme events; and (ii) Extreme climatic threats also require additional finance to increase the scale of climate risk reduction investments to protect the livelihoods and settlements (people and their main assets the homes) from flood as well as improve the methods and application of a good practices. GCF involvement will considerably enhance the ongoing government programmes, employing best practices and scaling-up achievement of successful pilots and good international practice. As a result the proposed investment will be transformational.
- 8. Short justification for chosen instrument to be financed by the GCF: The project proposed grant finance from GCF. Because, the people living in the riverine char areas are highly vulnerable to climate change particularly flood. Their homesteads are subject to regular inundation by normal flood. Their livelihoods depend on subsistence agriculture and agriculture wage labourwhich is also very sensitive to flooding. They loss their crops almost every alternative years. The women in char areas are particularly vulnerable to flood because they have to look after children and old members of the household in addition to collect drinking water, cooking food, looking after poultry and livestock and other household activities. Adolescent girls and women are also vulnerable to sexual harassment during flood because they have to stay on the embankments or flood shelters. These poor communities



always struggle to meet their daily necessary commodities and have least capacity to address additional threats from climate change including frequent and intensive flooding in their locality.

- 9. The experiences gained from this pioneering adaptive social protection intervention, at scale with GCF resources will ultimately contribute in the reform process in Bangladesh so that climate change risks are systematically taken into account. The GCF resources will benefit communities by improving their adaptive capacity in flood affected northern part of Bangladesh, thereby reducing their overall vulnerability to climate change risks. Effective implementation of the project will provide important evidence to the Government of Bangladesh of the benefits of incorporating publicly funded investment for adaptation into social protection (SP) expenditures. In this way, the GCF contribution will institutionalize adaptation into key government social protection programmes, effectively extending the results of the project far into the future.
- 10. A coordination mechanism is built in the project document through engagement of various levels of stakeholders. The project will coordinate government and other development partners including GCF's MIEs working in Bangladesh before selecting unions and villages. The project will carefully

avoid duplication of areas where climate change projects are being implemented. Major climate financing projects in adaptation sector in Bangladesh are financed by Bangladesh Climate Change Trust Fund (the public fund created by the government of Bangladesh) and the GCF. In addition, The World Bank, DFID, USAID, IUCN, UNDP, WFP, FAO etc. development partners are implementing climate change projects in the country. The project will engage all these stakeholders through workshops, seminars etc. during implementation of the proposed activities for avoiding duplication. Before sending this project document to GCF, it should pass through the advisory committee of NDA. Where the representation of government, non-government. development partner, UN agencies, academia and the experts are ensured.



11. *Working area:* The project will be implemented in 5 flood vulnerable districts namely Nilphamari, Lalmonirhat,

Kurigram, Gaibandha, and Jamalpur. The districts have been selected based on two criteria i.e. intensity and frequency of flood and density of Figure 1: Proposed working area

12. *Number of beneficiaries and selection criteria:* The total Vulnerable population due to flood are 1.3 million in the targeted 5 districts. Due to fund limitation of SAP, the project will select only 90,000 beneficiaries (considering double-counting of benefits it is 211,500) for the proposed project. The project will directly impact 90,000 vulnerable people in the selected 5 districts with high level of flood risks, high level of poverty, water scarcity, food insecurity etc. They account for 0.01% of the total population of the selected 5 districts and 0.07% of the flood vulnerable population. The following table shows the calculation of the project beneficiaries:



Categories of population	In Million	%(in the selected district only)
Total Population (Bangladesh)	160	
Total Population (Selected 5 district)	9.84	6.15
Male	4.86	49.39
Female	4.98	50.61
Flood vulnerable population	1.30	13.22
Total beneficiaries will be	0.19	1.9% of the total population and 14.6%
		of the flood vulnerable population

13. Criteria for beneficiary selection

- i. Those who are living in riverine char and low-lying flood vulnerable areas;
- ii. Priority on women headed households and other disadvantaged groups.
- iii. Poor and ultra-poor households (as defined in the Household Income and Expenditure Survey (HIES 2016) of the Bangladesh Bureau of Statistics (BBS-2017)²);
- iv. Daily income is less than USD 1.75;
- v. Those who are not receiving any support from other project or organization;
- 14. The beneficiary selection process will follow intensive consultations at districts, upazila (sub-district), union and community level. The most vulnerable district will select first for this process. The district consultation with government and non-government representatives will identify the most vulnerable upazila. Similarly the upazila consultation meeting will identify most vulnerable unions and consultations at union level will identify most vulnerable villages. At the village level, the community people will identify the vulnerable people as per the criteria. Thus, when the selection process will reach 90,000 beneficiaries, then it will be stopped. These 90,000 beneficiaries are direct beneficiaires and will represent 20,000 HHs (average family size is 4.5). One representative from each HHs will form 1000 Climate Change Adaptation Groups (CCAGs). For measuring the poverty, the project will use Poverty Probability Index (PPI).In addition to these direct beneficiaries, the proposed project expects that approximately another 100,000 beneficiaries will be benefited by the project interventions particularly during flood emergency by taking shelter on the raised plinths, drinking water from the tube wells, using sanitary latrines and gathering knowledge on climate resilient crop production. They are indirect beneficiaries as they will not participate in the project activities directly.
- 15. Male-female raito in the selected districts is 0.98:1. Hence, we consider that among the direct beneficiaries, 50% is male and 50% is female. But the proposed project is gender-sensitive. So, we put emphasis on women, women heads and other disadvantaged groups while forming the CCAGs. Because the CCAG members will take all decisions at the community level regarding activity location, activity distribution, quality of implementation etc. About 80% of the CCAG members or 16,000 beneficiaries will be women, women heads and other disadvantaged groups. Among women beneficiaries, 10% (nationally women headed households are about 12%) or 1600 will be women heads. Because empowerment of women is the key to sustainable development in the country. Nepoleon Bonaparte stated that "Give me an educated mother, I will give you an educated nation." The project adopted this approach. The women will be educated on climate change issues in their localities because mother is the best teacher of a child. The children will learn about climate change from their mother. This will have long term impacts in the society. The new generation will grow in a climate resilient environment. The CCAGs will include mostly female members because enhancing capacity of a women on climate change issues means enhanced capacity of the whole households. The activities are designed in a way that the women will be mostly benefited economically and socially. Besides, necessary female staffs will be ensured at the field level so that women members can easily express their opinions and actively take part in the project activities.



16. The female headed households will receive priority while selecting the beneficiaries. As per experience of CCCP, there will be female headed households. The consultation meetings during beneficiary selection will identify the female headed households. Level of vulnerability is the main distinction between a women in married households and a female heads of the households. The female heads are more vulnerable because their income source is very limited, they cannot go outside of their locality, women's labour rate is also low. These limitations makes them more vulnerable than the women in married households.

² This document defined extreme poor as the person having purchasing power parity (PPP) below 1.25 USD a day and PPP below 1.90 a day is called poor.



B. PROJECT/PROGRAMME DETAILS

B.1. Context and baseline (max. 500 words)

Theory of Change

Baseline scenarios

- 17. Bangladesh is a country which is prone to hydro-meteorological hazards. Many of such hazards such as floods and high intensity cyclones occur in disastrous proportions, causing significant losses of lives and physical assets including infrastructure and inflicting upon heavy economic losses (Rahman et al., 1990³; Ahmad et al., 1994)⁴. Many of these hazards are recurring and linked with climate variability and change. In recent decades, Bangladesh has been doing well, exhibiting high economic growth and attaining macroeconomic stability, even defying global scale recession. However, many believe that the country could have achieved much faster economic growth had it not been repeatedly affected by climate variability and change related disasters.
- 18. Flood is perhaps the most common hydro-meteorological hazard in Bangladesh. The country's 88% landmass falls in the floodplains of three major South Asian river systems, namely the Ganges, the Brahmaputra and the Meghna (GBM). All these rivers are located in the Eastern Himalayan region, which is overwhelmingly influenced by monsoon-related rainfall runoff. The country and its floodplains occupy only 7% of the combined GBM catchment area, however it has to drain over 92% of the combined GBM flows a mismatch which brings regional water that constitutes the second largest outfall in the world. Moreover, such a spatial dimension of regional water is compounded by acute seasonal distribution. South Asian monsoon occurs only during June and September, generating over 80% water flow in about four months, every year. This brings an extremely large volume of water to Bnagladesh, which the rivers often cannot transport to the ocean (Mirza et al., 2003⁵; Rahman et al., 1990). This is why floods occur in the country so frequently (Mirza and Ahmad, 2005⁶; Mirza and Ahmed, 2009⁷).
- 19. Furthermore, the country is sitting on the largest delta on earth, and its topography is flat. The GBM river system brings large quantity of sediments, which get deposited on the river bed while the flow volume decreases during the lean season (especially between November February). This is how the river beds gradually lose discharge capacity, and seasonal regional flows spill over the river banks. Just because the elevation and the gradient to the ocean is low, the backwater effect often decelerates outflow further aggravating floods (Ahmed, 2005⁸; MOEF, 2012⁹).

⁶ Miirza, M.M.Q., 2005. Hydrologic Modeling Approaches for Climate Impact Assessment in South Asia, in M.M.Q.

³ Rahman, A.A., S. Huq and G.R. Conway (eds.), 1990. Environmental Aspects of Surface Water Systems of Bangladesh, Dhaka, University Press Limited, p. 258.

⁴ Ahmad, Q.K., N. Ahmad, and K.B.S. Rasheed (eds.), 1994, Resources, environment and development in Bangladesh, with particular reference to the Ganges, Brahmaputra and Meghna basins, Dhaka, Academic Publihsers.

⁵ Mirza, M.Q., A. Dixit and A. Nishat (eds.), 2003. Flood problem and Management in South Asia, in M.M.Q. Mirza and Q.K. Ahmad (eds.), Climate Change and Water Resources in South Asia, Leiden, Balkema Publishers.

Mirza and Q.K. Ahmad (eds.), Climate Change and Water Resources in South Asia, Aeiden Balkema Publishers. ⁷ Mirza, M.M.Q. and Ahmed, A.U., 2009. Global Warming, Changes in Hydrological Cycle and Availability of water in South Asia, in A.P. Mitra and C. Sharma (eds.), Global Environmental Changes in South Asia: A Regional Perspective, New Delhi and Kolkata, Capital Publishing Company, pp. 222-232.

⁸ Ahmed, A.U., 2005. Adaptation options for managing water related extreme events under climate change regime: Bangladesh perspectives, in M.M.Q. Mirza and Q.K. Ahmad (eds.) "Climate Change and Water Resources in South Asia", Leiden, Balkema Press, pp. 255-278.

⁹ MOEF/GOB, 2012. Second National Communication: Adaptation, contribution to Second National Communication (SNC) of GOB, submitted to Ministry of Environment and Forest, GOB, November 2012.



- 20. Despite the fact that Bangladesh has long been belonging to the group of Least Developed Country (LDC), it has invested quite heavily to protect its population and hinterlands from recurring floods. Since late 1960s, vast proportion within the floodplains is protected from floods by erecting earthen embankments, supplemented by hard engineering structures. The national mandated agency to manage these structures is Bangladesh Water Development Board (BWDB), which spends billions of dollars annually towards maintenance of this critically important infrastructures.
- 21. In the first two decades since the beginning of protection works, the aerial extent of flooding decreased, with significant reduction of sufferings of affected population particularly that of women, elderly and children. However, a careful analysis of flood occurrence in the country reveals that, the high intensity floods are occurring more frequently in the recent decades, despite having flood protection embankments (Ahmed, 2008). Researchers indicated that, the climate variability and change induced (monsoon) rainfall throughout the eastern Himalayan region and also within the country has been causing an increase in flood-proneness of the country. The increase in flood extent and the frequency of occurrence of high intensity floods despite the embankments may be better captured in Figure-2 which is self-explanatory. The areas under flood is plotted against time (year), which indicates that, soon after the flood protection initiatives taken by the BWDB, smaller floods were controlled, however due to a multitude of factors explained in the above paragraphs, including the regional rainfall runoff that is induced by climate variability and change, the system can no longer offer protection of the lands and high intensity floods are occurring at a smaller time intervals.



22. A systematic analysis of daily rainfall between the years 1958-2007 is presented by Shahid (2011)¹⁰, where rainfall gauge data collected and published by Bangladesh Meteorological Department (BMD) is used for the analysis. The Mann-Kendall trend test has been performed to analyse the trends of rainfall indices

¹⁰ Shahid, S., 2011. Trends in extreme rainfall events of Bangladesh, The Applied Climatology, Vol. 104, pp. 489-499.



(Mann, 1945¹¹; Kendall, 1975¹²), while the Sen's slope method has been applied to estimate the magnitude of change (Sen, 1968¹³). Shahid used 90%, 95% and 99% confidence levels as thresholds to classify the significance of trends. It is found from the trend study that, indeed, the annual average rainfall shows a positive (i.e, increasing) trend at 90% confidence level. Sen's trend analysis method reveals that the rate for annual average rainfall over the said timeline has been +6.58mm/year over Bangladesh. The study also indicates that, generally the northern regions of the country are exhibiting higher extents of increasing annual rainfall. Since the monsoon seasonal rainfall dominates the annual rainfall (over 80% of annual rainfall occurring in monsoon), the results may be extended to indicate that the monsoon rainfall is increasing over Bangladesh. A further analysis based on seasonal rainfall suggests that the pre-monsoon rainfall is also showing significant positive change (on an average 3.78mm/year), which however is increasing at slower rate than in the monsoon.

- 23. The number of rainy days in majority of the stations are found to increase over the same time period. The rainfall intensity of the country is also found to increase in most of the stations covered under the study. The same analysis also reveals the trends regarding extreme rainfall over Bangladesh. At 90% confidence level, it is reported that the average number of heavy rainfall days are increasing by 0.12 days/year. Again, the maximum increase in average heavy rainfall days is observed in Rangpur¹⁴, located in the northern region, by 0.22 days/year at 99% levels. Since the landmass of Bangladesh has a gentle slope towards South and most rivers are flowing North to South, an increase in the northern territories means greater flood susceptibility in the central and southern regions of the country.
- 24. Now the critical question is where climate change is occurring in Bangladesh and whether the increase in rainfall over the country is somewhat related to climate change. A number of research initiatives in the recent past have shed adequate light on occurrence of climate change over Bangladesh. Choudhury et al (2003)¹⁵ reported an increase in surface average temperature over Bangladesh by 0.74°C between 1950 and 2000. The Government of Bangladesh (GOB) in its Second National Communication reported that the mean annual maximum and minimum temperatures over the period 1977-2008 has risen by 0.02 and 0.012°C/year, respectively (MOEF, 2012). Choudhury et al (2003) also claimed a rising rainfall trend, which has been later echoed by Shahid (2011). The Second National Communication by the GOB reported that, the mean seasonal rainfall is found to be maximum during the pre-monsoon and monsoon seasons by around 100mm over the past half century (MOEF, 2012). Clearly, climate forcing has been responsible to change the in-country rainfall and consequential runoff, which aggravates floods, as explained in the earlier paragraphs.

Mirza extensively studied the implications of climate change on floods in Bangladesh (Mirza, 1997¹⁶; Mirza, 2005). The indications emanating various modelling works clearly indicate the positive correlation between climate change and increased flooding in Bangladesh. With greater climate forcing, there will be higher levels of evaporation from the Indian Ocean to cause heavier rainfall and subsequent runoff in the

¹⁵ Chaudhury, A.M., Auadir, D.A., Neelormi, S. and Ahmed, A.U., 2003. Climate Change and Its Impacts on Water Resources of Bangladesh, in A. Muhammed (eds.), Climate Change and Water Resources in South Asia: Proceedings of Year End Workshop, Kathmandu, 7-9 January, 2003, Islamabad, AgroDev International, START and Fred J Hansen Institure for World Peace, PP. 21-60.

¹¹ Mann, H.B., 1945. Nonparametric tests against trend, Econometrica, Vol. 13, app. 245-259.

¹² Kendall, M.G., 1975, Rank correlation methods, Griffin, London.

¹³ Sen, P.K., 1968. Estimates of the regression coefficient based on Kendall's tau. J Am Stat Assoc, vol 63, pp. 1379-1389.

¹⁴ The target area of the proposed project corresponds to the greater Rangpur region, where the said station is located.

¹⁶ Mirza, M.M.Q., 1997. Modelling the Effects of Climate Change on Flooding in Bangladesh, PhD Thesis, International Global Change Institute (IGCI), University of Waikato, Hamilton, New Zealand.



eastern Himalayan rivers, leading to much greater runoff volumes to enter into Bangladesh and greater probability of flooding (Mirza and Ahmed, 2005).

Choudhury et al., (2004) studied future flood-related hazards under climate change using HadRM2, a regional climate model validated for Bangladesh. From the modelling analyses, it is found that the monsoon rainfall is expected to increase by 10-11% by 2050 under a moderate scenario (assuming 2°C by 2100), which suggests that the surface runoff will increase by 20% in the corresponding year. It is also concluded that high intensity floods, under such aggravated inundation regime, will occur more frequently and the depth-duration matrix for future floods will cause much greater impacts than usual. Already Bangladesh has suffered the worst flood in recorded history in 1998, which inundated over 68% of the landmass for a consecutive 72 days, resulting in an economic damage worth USD4.3 billion!

The areal extent of flood in Bangladesh indicates where the water generally inundates the landscape. The Figure-3 shows the average extent of a monsoon flood in Bangladesh (the shaded areas indicated). When flood water engulfs an area, not only the standing agriculture gets severely affected, thereby adversely affecting poor people's main livelihoods, it also affects homesteads including dwelling units, water supply system (by inundating tube wells), the rural markets which are generally located in low lying areas, industries and commercial activities and disrupts, if not destroys, physical infrastructure including health care facilities.



Figure-3: The flood vulnerable areas of Bangladesh



In 2017, floods have occurred three times in different parts of the country. The first one in March and April, 2017 which was severe flash flood; the second one was in July, 2017 and the third one was in August, 2017. It has affected 8 million people, causing deaths and injuries, loss of livestock and food supplies, and damage to housing and infrastructure. According to official estimates, July flood affected 1.6 million people (some 338,500 households), damaged over 100,000 houses and destroyed schools, roads, bridges and embanks. Floods in August 2017 affected 31 out of 64 districts of the country. Floods adversely affected the livelihoods of about 6.8 million people and caused significant damage to housing and infrastructure. Floods caused loss of 1.1 million cows and buffalos; 270,000 goats and sheep and 3.2 million ducks and hens and 220,000 tons of fish. But the final estimates may be increased more. Again in July-August 2019, a major flood takes place in Bangladesh, particularly in the northern districts including the target districts under this project, where large scale social and economic damage occurred involving the affected population.

The above-mentioned future climate risks in terms of increased occurrence of high intensity floods will have severe implications on household welfare across the floodplains. For both climate variability and climate change, around 80% of total losses fall directly on household consumption (cumulative total consumption losses of US\$441.7 billion and US\$104.7 billion for climate variability and climate change respectively). Per capita consumption will fall for both farm and nonfarm households. It is argued that, women in the affected villages are the primary victims of indigenous coping strategies being employed during floods: they suffer from malnutrition as a result of drastically reducing their food intake when the opportunity for selling labour of the dominant male in the household is decreased during a high flood (Etzold et al., 2014¹⁷; Ahmed et al., 2012¹⁸). This is more prevalent in greater Rangpur region (particularly in Kurigram, Nilphamari and Gaibandha districts – all of these are project target areas), where the extent of poverty is still very high. Kurigram is a case in itself. It is argued that, the District is criss-crossed by at least 16 rivers and is very highly susceptible to flood, which is why the region faced acute poverty (Ahmed et al., 2012).

- 25. It is clear from the above analysis that homestead and livelihood sectors of the poor community i.e. agriculture, livestock, water and sanitation etc. are the most vulnerable sectors to climate change and associated extreme events. In the flood prone char areas, the poor people build their houses in low-lying areas which are regularly inundated by floods. During floods, they leave their houses and take shelter on nearby roads or embankments or any flood shelter. This lead to lose their household resources including livestock and poultry, make them sick leading increased treatment cost, insecure women particularly adolescent girls etc. The poor and marginalized community living in these climate hotspot areas generally depends on agriculture including crops, livestock, poultry, fisheries etc. which are highly sensitive to climate change and related extreme events as stated above.
- 26. The above analyses clearly suggest why the recently exacerbated floods are linked with climate variability and change and why it is urgently needed to address the vulnerabilities of rural poor people affected by floods.

¹⁷ Etzold, B., Ahmed A.U., Hassan, S.,R., & Neelormi, S., 2014. Clouds gather in the sky, but no rain falls. Vulnerability to rainfall variability and food insecurity in Northern Bangaldesh and its effects on migration. Climate and Development, 6(1), 18-27.

¹⁸ Ahmed, A.U., Etzold, B., Hassan, S.R. and Neelormi, S., 2012. Rainfall, Food Security and Human Mobility: Case Study Bangladesh, CARE International and United Nations University, Bonn.



Economic loss of the targeted households without the project

- 27. The economic loss of the targeted beneficiaries without the project is significant particularly for the poor and vulnerable community. The flood affected community faces multidimensional loss during flood. A household living in riverine char areas of the selected districts would cost BDT. 50,000-60,000 annually, if affected by flood (estimated in consultation with flood affected people). This cost includes house repair, crop and vegetable damage, loss of livestock resources, loss of income, transport cost for going to and returning from shelter, diseases etc. This cost would be double if the household is affected twice in a year.
- 28. **Incremental cost:** Most of the activities are designed considering present and future impacts of climate change in targeted areas. Without climate change, the project would not propose homestead plinth raise, slatted houses for goat/sheep rearing, tube wells and sanitary latrines on raised plinths, flood resilient crop production etc. So, the total estimated cost as grant from GCF is considered as the incremental cost. So, the total incremental cost of the project will be US\$9.68 million.
- 29. Situation with and without project: With implementation of the project, homesteads of the selected households will **not** be inundated by flood water. They will continue their daily necessary works as usual. They will be able to produce fruits and vegetables on the raised plinths. They will also be able to protect their livestock and other household resources during flood which they cannot do now. They will have access to safe drinking water and sanitary toilets facilities through the year including flood season. This will reduce the medical cost for the water borne diseases and lack of maintenance of hygiene. They will cultivate flood tolerant rice variety and harvest good crop which will enhance their resilience in terms of food availability as well as cash income. They will build strong houses on the raised plinths which will reduce their recurrent reconstruction cost. Most importantly, they will learn how to tackle climate change and related disasters by their own which they are not capable to do now. The project will also facilitate other flood affected people to take shelter on the raised plinths during flood with their livestock and household resources. Without the project, the targeted beneficiaries had to suffer from flood almost every alternative year. They had to repair their house every year. They could not grow fruits and vegetables in their homestead areas. They had to take shelter on the embankment or flood shelter during flood. They had to sell their livestock resources at very low price due to lack of rearing place. Most importantly, women and adolescent girls would have at high risk of sexual harassment. Without the project, there were least change of getting crops each year. Thus this community would be pushed intense poverty as they are now.

Barrier and challenges

- 30. The project identified three types of barrier and challenges to be overcome by implementing its components. These are- Institutional barrier, social barrier and financial barriers.
- 31. **Institutional barriers:** At the local or community level, there is no specialized institutions to address climate change issues. Local government institutions mainly deal with regular development activities. Besides, the MFIs and other development NGOs are specialized in implementing regular development projects and credit programmes. But climate change adaptation projects are comparatively new and critical in terms of addressing additionality of climate change. This project will enhance capacity of the selected existing MFIs (potential IEs) through facilitating specialized staff recruitment and training. In addition, Climate Change Adaptation Groups (CCAGs) will be formed at community level. These CCAGs will be trained on climate change issues by facilitating both class room and on-the-job training. At PKSF level, PKSF as Executing Entity will establish Project Management Unit (PMU) where specialized staffs will be recruited.

Social barriers:

32. *Lack of awareness on climate change:* The key barrier in implementing climate change project is the people's perception. The affected people are well aware about the disaster but they very often think about



climate change. They lack in understanding present and future impacts of climate change. Presently they are highly reactive to any shocks but could not address long term climate change impacts. The project will create awareness among the selected community in monthly group meetings of the CCAGs on climate change issues. The issues of climate change will be repeatedly discussed in the groups so that they understand well and to address it properly.

- 33. Lack of equal opportunity for men and women to participate climate change adaptation project: The society of Bangladesh is primarily dominated by male members. This social characteristic restricts women in participating projects and programmes particularly in the rural areas. The project will select mostly the women members of the society to increase their participation particularly in the climate change adaptation project and its activities.
- 34. *Seasonal migration*: Many of the flood affected people migrate to nearby or distant cities and urban areas for work because, they do not have work due to climate change induced floods in their locality. The women and children in their houses suffer from food inundation and to get daily necessary commodities.
- 35. *Poor and vulnerable community*: The project will select poor and ultra-poor people in the flood vulnerable areas. These people live in low-lying riverine char areas which are highly sensitive to flood.
- 36. Financial barrier: Finance is a challenge both at central level and community level, particularly for addressing climate change issues. General Economics Division (GED) of Bangladesh estimated that implementation of SDG will require additional USD 928.48 billion from FY 2017 to FY 2030 which is already a burden for a country like Bangladesh. In addition, the World Bank estimated that inland monsoon flooding the cost will be \$26.71 billion and the annual recurrent cost will be \$54 million up to 2030. It was also estimated that Bangladesh will need to invest \$44 billion from 2015 to 2030 in order to implement identified adaptation measures to address adverse impacts of climate change for tropical cyclone, monsoon flooding and climate related diseases. In addition, the selected community are mainly poor and ultra-poor and living on subsistence agriculture and wage labour. They do not have enough financial capacity to address additional threat from climate change. The GCF finance could help the government as well as the community in addressing climate change related problems in the selected community.



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Impacts	 Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions. Increased resilience of health and well-being, and food and water security Increased resilience of infrastructure and the build environment to climate change 					
Outc	omes 1. Institut address 2. Protect 3. Increas 4.	ions (Implementing Entities ing climate change ion of homestead from adv ed access to safe water and to flood resilient livelihood	s) and commun erse effect of flo sanitation 1	ity groups strengther od	ned capacity on	
Outputs	 1.1 Climate change ad (CCAG) formed at 1.2 Preparation of vult assessment and ada plan 1.3 Trainings and work Change conducted and stakeholders 1.4 Preparation and dis knowledge produc 	aptation groups nd operationalized2.1nerability aptation action2.2cshops on Climate for Beneficiaries2.2ssemination of ts5	Raised homesteads above flood level Reconstructi on of climate resilient houses	3.1 Installation of resilient tube wells3.2 Construction of sanitary latrines	 4.1 Rearing of goat/sheep in slatted houses 4.2 Cultivation of flood tolerant crops 	
knowledge products1.1.1 Beneficiary selection and gr1.1.2 Prepare Beneficiaries's social1.1.3 Arrange monthly group meetchange issues of CCAG1.2.1 Carry out participatory vuln1.2.2 Prepare Local level adaptatiParticipatory Rural Appraisa1.3.1 Prepare training manuals anClimate Change issues and p1.3.2 Prepare training plan and orsessions for Beneficiaries1.3.3 Organize training for IEs stat1.3.4 Organize exchange visit forIEs staff1.3.5 Organize workshops and ser1.4.1 Prepare and disseminate known		nd group formation socio-economic profile o meetings on climate definition action plan using praisal (PRA) tools ls and guidelines on and project management and organize training des Es staff it for CCAG members and and seminars e knowledge products	2.1.1 Rase homestea plinths in clusters 2.2.1 Pr vide financia support to reconstruct climate resilient houses on raised plinth	ai d 3.1.1 Install tube wells 3.2.1 Construct climate resilient sanitary latrines	 4.1.1 Provide support to rear goat/sheep in slatted houses 4.2.1 Cultivate flood resilient rice variety BRRI dhan 51 &52 and BINA dhan 11 4.2.2 Cultivate early and disease protective wheat variety BARI 26 4.2.3 Cultivate vegetables in 	
BarriersInstitutional barriers• Weak institutions for addressing climate change impacts in Bangladesh• Social barrier• Lack of proper awareness on climate change adaptation and resilience• Lack of equal opportunity for men and women in participating climate change adaptation project• Poor and vulnerable community • Living in low-lying riverine, flood prone char area					Financial barrier • Lack of financial ability of the vulnerable poor community and the country for addressin all the climate change	



B.2. Project/programme description (max.1,000 words)

- 38. The main objective of the project is to increase resilience of the climate vulnerable community in flood prone areas of Bangladesh. This will be achieved through four outcomes i.e. (1) Institutions (Implementing Entities) and community groups strengthened capacity on addressing climate change, (2) Protection of homestead from adverse effect of flood, (3) Increased access to safe water and sanitation and (4) Access to flood resilient livelihood. Under outcome 1, the project will enhance capacity of 10 organizations (IEs) to implement climate change adaptation projects at community level. It will also increase capacity of 90,000 beneficiaries in the flood vulnerable areas on climate change vulnerabilities and impacts through class room training, meetings and group exercises. The project will produce and document lessons and share these lessons in different levels of stakeholders. The project will also generate information and knowledge on effective implementation of community based adaptation projects through GIS and result based monitoring system. Under outcome 2, the project will raise plinth of 45,000 vulnerable people in cluster basis with alluvial sand above flood level in the riverine char land of Brahmaputra and Teesta river. The project will also facilitate the plinth dwellers to cultivate vegetables and plant trees round the year on the raised plinth. Under outcome 3, the project will install 500 flood resilient shallow tube wells for safe drinking water and 2810 sanitary latrines for hygiene. Necessary awareness sessions on health and hygiene will be conducted in the monthly group meetings of CCAGs. Under outcome 4, the project will enhance resilience of livelihoods of 45,000 beneficiaries against flood. The project will have both grant and loan financing. GCF will provide grant support whereas PKSF will provide both loan and grant (in kind) support. This is mainly because, the project will be implemented in remote climate vulnerable areas. In many cases, the government waves loan of the vulnerable community particularly due to affected by natural disasters including flood. That means, providing loan to the vulnerable community is very risky investment and difficult to recover the loan. That's why, the project does not propose loan from GCF.
- 39. **Project Impacts:** The project will address three impact areas of GCF i.e. 1) increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions; 2) increased resilience of health &well-being, and food and water security and 3) Increased resilience of infrastructure and the built environment to climate change.
- 40. Overall, the project expects that 90,000 selected beneficiaries from 5 flood vulnerable districts of Bangladesh increased their resilience through adopting proven adaptation technologies including homestead plinth raising, flood resilient crops, goat/sheep rearing in slatted house, drinking water and sanitation, and improving knowledge on climate change. They will be well aware about the impacts of climate change on their lives and livelihoods and reduced loss and damages of their resources including crop, livestock, water and sanitation sector etc. They also build climate resilient homesteads to secure their household resources and health.

Expected outcomes contributing to the impacts

Outcome 1: Institutions (Implementing Entities) and community groups strengthened capacity on addressing climate change

41. Addressing climate change impacts at the community level requires specialized institutions. Local government institutions in Bangladesh mainly deal with regular development activities. Besides, there are experienced NGOs who have strong and long term relationship with local communities due to credit programmes. These organizations would play crucial role in promoting climate change adaptation activities at community level. The proposed project will select 10 NGOs as Implementing Entities in the proposed working areas and enhanced their capacity through training and practicing adaptation activities. This will significantly contribute to achieve the objectives of the project.



42. PKSF always works with poor and vulnerable people in group based/community based approach. For climate change adaptation projects, these groups are termed as "Climate Change Adaptation Groups (CCAGs)." One representative from each selected HHs will be the members of the group. About twenty (+/-) participants together will form a group. The objective of forming this group is to deliver the support services in groups in order to minimize the delivery cost as well as to ensure participation and collective decisions of the affected community in implementing the proposed interventions. It will help transfer of knowledge on climate change issues among the society because they will discuss about climate change in a regular periodic interval typically fortnightly or monthly in groups. Thus, they will be able to internalize climate change impacts on their lives and livelihoods. The groups will receive training on climate change issues and how to deal with these problems. They will be able to identify climate change. They will also look after community infrastructures beyond the project period. Besides, the group approach reduce the management cost of the project. Grant finance from GCF will be used for carrying out all activities under this outcome.

Outcome 2: Protection of homesteads from adverse effect of flood

43. The homestead will be protected from flood through raising homestead plinths above flood level in cluster basis. Alluvial sand will be used to raise selected homestead plinths. The homestead plinths will be equipped with tube wells for safe drinking water and flood resilient sanitary latrines (outcome 3). The cluster dwellers will be able to cultivate vegetables round the year which they cannot do it now. They can also prepare seed bed on the raised plinths for planting crops immediate after recession of the flood water. This component/outcome will include both grant and loan. Grant from GCF will be used to raise homestead plinths and loan from PKSF will be used to reconstruct the houses.

Outcome 3: Increased access to safe water and sanitation

44. Scarcity of drinking water is occurred due to flood. Drinking water sources are inundated by flood water during monsoon season. Similarly, latrines are inundated by flood water. The proposed project will install 500 tube wells and 2810 sanitary latrines on raised plinths. Grant from GCF will be used to implement all activities under this outcome.

Outcome 4: Access to flood resilient livelihood

45. Most of the climate vulnerable poor people depend on subsistence agriculture and agriculture wage labour which are highly sensitive to climate change, variability and extreme events. Hence, the project will provide technological support and capacity training to the selected beneficiaries in promoting flood resilient technologies and practices particularly in agriculture sector. Goat/sheep rearing in slatted houses and cultivation of flood resilient crop varieties are such technologies that the project will support to the beneficiaries to increase resilience of their livelihoods. This outcome will have both grant and loan. The loan from PKSF as co-finance will be used to purchase goat/sheep and grant from GCF will be used for promoting climate resilient crop, making goat/sheep houses etc.

Description of activities contributing to the impacts by outcome

Outcome 1: Institutions (Implementing Entities) and community groups strengthened capacity on addressing climate change

Output: 1.1: Climate change adaptation groups (CCAG) formed and operationalized



Activity 1.1.1: Beneficiary selection and group formation

- 46. The project will select 20,000 households covering 90,000 direct beneficiaries in consultation with local government institutions and community people. For measuring the poverty, the project will use Poverty Probability Index (PPI). At this stage of selection, we will first select the 20,000 HHs based on the following selection criteria
 - i. Those who are living in riverine char and low-lying flood vulnerable areas;
 - ii. Priority on women headed households and other disadvantaged groups;
 - iii. Poor and ultra-poor households (as defined in the Household Income and Expenditure Survey (HIES 2016) of the Bangladesh Bureau of Statistics (BBS-2017)¹⁹);
 - iv. Daily income is less than USD 1.75;
 - v. Those who are not receiving any support from other project or organization;

The selection will be based on order of the selection criteria up to exhaustive to select 20,000 HHs.

Selection criteria for the selection of Beneficiaries under Activity 2.2.1:

- i. Those who have raised plinth above flood level;
- ii. Women headed households and households with disadvantaged members will be given priority;
- iii. Poor and Ultra-poor Households (as defined in the Household Income and Expenditure Survey (HIES 2016) of the Bangladesh Bureau of Statistics (BBS-2017));
- iv. Those who do not have financial capacity to reconstruct their house.

The selection will be based in order of the selection criteria from amongst the targeted households in the Project Area. When the selection process reaches 10,000 households, it will be stopped.

Selection criteria for the selection of Beneficiaries under Activities 3.1.1, 3.2.1, and 4.1.1:

- i. Women headed households and other households with disadvantaged member will be given priority;
- ii. Poor and Ultra-poor Households (as defined in the Household Income and Expenditure Survey (HIES 2016) of the Bangladesh Bureau of Statistics (BBS-2017));
- iii. Those who do not have financial capacity to set up a tube well (Activity 3.1.1), sanitary latrine (Activity 3.2.1), and slatted house for goat/sheep rearing (Activity 4.1.1);
- iv. Those who have raised plinth above flood level.

The selection will be based in order of the selection criteria from amongst the targeted households in the Project Area. When the selection process reaches 10,000 households, it will be stopped.

Selection criteria for the selection of Beneficiaries under Activities 4.2.1, 4.2.2, and 4.2.3:

- i. Having cultivable land at least 0.20 hectare;
- ii. Women headed households and households with disadvantaged members will be given priority;
- iii. Have the ability to run/manage crop cultivation;
- iv. Poor and Ultra-poor households (as defined in the Household Income and Expenditure Survey (HIES 2016) of the Bangladesh Bureau of Statistics (BBS-2017)).

¹⁹ This document defined extreme poor as the person having purchasing power parity (PPP) below 1.25 USD a day and PPP below 1.90 a day is called poor.



The selection will be based in order of the selection criteria from amongst the targeted households in the Project Area. When the selection process reaches 10,000 households, it will be stopped.

- 47. The project will form 1000 groups having 20 (+/-) persons in each group for delivery support. These groups are named as Climate Change Adaptation Groups (CCAGs). One beneficiary from each household will represent in the CCAGs. So, 20,000 beneficiaries from 20,000 selected household will form 1,000 CCAGs. Each group will meet at least once in a month and discuss about climate change and its impacts on their lives and livelihoods. They will adopt and practice climate adaptive technologies that will be promoted by the project. The objective of forming this group is to deliver the support services in groups in order to minimize the delivery cost as well as to ensure participation and collective decisions of the affected community in implementing the proposed interventions. It will help transfer of knowledge on climate change issues among the society because they will discuss about climate change in a regular periodic interval typically monthly in groups. Thus, they will be able to internalize climate change impacts on their lives and livelihoods. The groups will receive training on climate change issues and how to deal with these problems. They will be able to identify climate change problems on their lives and livelihoods and prepare plan accordingly to reduce the impacts of climate change in future. They will also look after community infrastructures beyond the project period. Besides, the group approach reduce the management cost of the project. The IEs' project staffs will conduct necessary consultation at local level and select potential beneficiaries. The PMU of EE will oversee the process of beneficiary selection and group formation. Grant finance from GCF will be used to carry out this activities.
- 48. About 80% of the CCAG members will be women i.e. 16000 of the direct beneficiaires will be women. 10% of these 16000 women beneficiaries i.e. 1600 will be women headed (national average of women headed household in Bangladesh is around 12%). Because empowerment of women is the key to sustainable development in the country. Nepoleon Bonaparte stated that "Give me an educated mother, I will give you an educated nation." The project adopted this approach. The women will be educated on climate change issues in their localities because mother is the best teacher of a child. The children will learn about climate change from their mother. This will have long term impacts in the society. The new generation will grow in a climate resilient environment. The CCAGs will include mostly female members because enhancing capacity of a women on climate change issues means enhanced capacity of the whole households. Women head will be given prority while forming the CCAGs. The activities are designed in a way that the women will be mostly benefited economically and socially. Besides, necessary female staffs will be ensured at the field level so that women members can easily express their opinions and actively take part in the project activities.
- 49. The female headed households and other disadvantaged groups will receive priority while selecting the beneficiaries. As per experience of CCCP, there will be female headed households. The consultation meetings during beneficiary selection will identify the female headed households. Level of vulnerability is the main distinction between a women in married households and a female heads of the households. The female heads are more vulnerable because their income source is very limited, they cannot go outside of their locality, women's labour rate is also low. These limitations makes them more vulnerable th the women in married households.

Activity 1.1.2 Prepare Beneficiaries' socio-economic profile

50. Detailed socio-economic profile of the selected households will be prepared before providing any support. The purpose of the profile is to keep the record of existing situation with project intervention. This information will be used to compare short term progress achieved by project interventions. The IEs' project



staffs will carry out the socio-economic profile. The PMU at EE level will provide necessary technical support including developing tools and guidelines. This activity will use grant finance from GCF proceed.

Activity 1.1.3 Arrange monthly group meetings on climate change issues of CCAG

- 51. The IEs will have field level staffs to directly coordinate with the beneficiaries. S/he will assist the groups in organizing meetings, discussion on climate change and other environment and health issues. The meeting notes will be preserved in a register book. The groups will take necessary decisions in addressing climate change impacts by the project interventions. They will decide who will get what types of support from the project, based on their needs. Thus, community level informal institutions will be shaped and carry forward by these group members. PKSF will co-finance this activity as in kind grant.
- 52. The experience of CCCP shows that the CCAGs are functional where they are engaged in financial services. Most importantly, the CCAG members are continuing most the activities as they are getting benefits from it. This project plans to engage the CCAG members in financial services (credit, savings, enterprise loan etc.) by the partner organizations of PKSF beyond the project period. This will ensure the sustainability of the CCAGs.

Output 1.2: Preparation of vulnerability assessment and adaptation action plan

Activity 1.2.1 Carry out participatory vulnerability assessment

53. Though the project has identified activities in consultation with vulnerable communities, but a systematic participatory vulnerability assessment (PVA) will be carried out in each community for long term planning in adaptation sector. This will be done as part of capacity building training to the vulnerable community to address future climate change impacts and vulnerabilities by themselves. 1,000 groups will carry out this exercise in their respective communities. The IE's staffs with technical support from PMU will develop necessary tools. The field level staffs of selected IEs will be provided training on PVA so that they can facilitate the CCAGs to carry out this exercise. This will increase understanding of the vulnerable community about climate change impacts on their lives and livelihood. Through this process, the selected community will internalize the perception on climate change so that they are able to address it in the long run. The whole assessement will focus on gender and climate change issues in the selected communities. PKSF will co-finance this activity as in kind grant.

Activity 1.2.2 Prepare Local level adaptation action plan using Participatory Rural Appraisal (PRA) tools

54. This activity will depend on completion of activity 1.3.1. The PMU will guide IEs' staffs in developing adaptation plan matrix (APM). The respective field staffs will discuss this matrix with the CCAGs and facilitate to identify necessary actions to address climate change in their locality. 1,000 CCAGs will prepare 1,000 adaptation action plan for their own locality. This will enhance their knowledge and understanding on adaptation activities for their own and help reducing loss and damage to their resources and productions. Thus, this activity will contribute to enhance their resilience to climate change. PKSF will co-finance this activity as in kind grant.

Output 1.3: Trainings and workshops on Climate Change conducted for Beneficiaries and stakeholders

Activity 1.3.1. Prepare training manuals and guidelines on climate change issues and project management

55. The PMU of EE will prepare a training manual to deliver TOT to the IEs' staffs on climate change issues and project management. Approximately 50 staffs from 10 selected IEs will receive this TOT. This will significantly contribute in strengthening institutions in addressing climate change issues at community level.



Besides, another training manual on climate change will be prepared for providing training to the CCAG members. PMU will prepare the training manual and IE staffs will deliver the training. The project will also prepare necessary guidelines including activity implementation guideline, monitoring and evaluation guideline, environmental and social management guideline, procurement guideline, accounting and financial manual etc. This activity will use grant finance from GCF.

Activity 1.3.2. Prepare training plan and organize training session for Beneficiaries

56. Each selected IE will prepare a training plan to deliver training to the selected CCAG members. This training plan will require approval from the PMU. PMU staffs will closely monitor the training sessions as per plan. Grant finance from GCF will be used to carry out this activity along with activity 1.1.3, 1.2.1 and 1.2.2.

Activity 1.3.3 Organize training for IEs' staff

57. PMU will organize and deliver the training sessions. About 50 staffs will receive this training in 2 batches (number of training will be around 10). This will enhance capacity of the newly recruited IEs'staffs. They will learn about climate change and adaptation as well as management of adaptation project. They will contribute to the organizations in practicing climate change related activities within the organization. This activity will use grant finance from GCF.

Activity 1.3.4 Organize exchange visit for CCAG members and IEs' staff

58. The project will organize 6 exchange visit by inter-community in the vulnerable areas. They will learn from each other and encouraged to adopt climate resilient technologies and practices. It is a type of in country training and sharing of knowledge/technology for the beneficiaries and IE's staffs. It will be conducted in the project areas or in other areas of the country under implementation of same kind of activity areas). This type of visit will be helpful for the smooth and successful implementation of project.

Activity 1.3.5 Organize workshops and seminars

- 59. The project will organize 20 workshops at national and local level. The workshop will include project inception, project closing, quarterly progress review workshops, annual learning sharing workshop, training workshops etc. In addition to NDA, representatives from other government agencies including, Ministry of Agriculture (MOA), Department of Agriculture Extension (DAE), Ministry of Environment, Forests and Climate Change (MOEFCC), Department of Environment (DOE), Bangladesh Climate Change Trust (BCCT), Ministry of Water Resources (MOWR), Water Resources Planning Organizations (WARPO), Bangladesh Water Development Board (BWDB), Flood Forecasting and Early Warning Centre (FFWC), Local Government Engineering Department (LGED), Ministry of Women and Children Affairs (MOWCA), Bangladesh Rice Research Institute (BRRI), Bangladesh Agriculture Development Corporation (BADC), Department of Public Health Engineering (DPHE), Department of Livestock, Department of Disaster Management etc. will be invited to attend the workshop. Besides, AE representatives, IE staffs and PMU staffs will be invited in these workshops. PMU will organize all these workshops. All the workshops and seminars will be organized with grant finance from GCF.
- 60. The project will identify best practices and lessons through out the project period. These best practices and lessons will be shared in these workshops. The government representatives will learn and be sensitized about the best practices and lessons of the project. This will help the relevant stakeholders incorporating



these lessons in their development works. They will also apply the technical know-how of the ECCCP-Flood in the existing and future projects.

Output 1.4 Preparation and dissemination of knowledge products

Activity 1.4.1:Prepare and disseminate knowledge products

- 61. The PMU will develop and publish quarterly newsletter on project progress and learning. This newsletter will be circulated in different stakeholders including GCF, Bangladesh NDA and other government organizations. Published newsletter will also be uploaded in PKSF's website. Grant finance from GCF will be used to carry out this activity.
- 62. The project will carry out lessons that have been learnt throughout the project period. Program Officer (Capacity building and knowledge management) of PMU will carry out the lessons and develop a booklet for publication. The knowledge documents will be distributed among the relavant government agencies (as mentioned above), international and natonal NGOs including partner organizations of PKSF. They will use the information from the knowledge documents in designing their future projects, management of adaptation projects and measuring short and long term impacts of adaptation project. They will consider effectiveness of raised plinths, slatted houses, flood resilient water and sanitation system as well as resilient agriculture and livelihood to be documented in the knowledge documents. This will also contribute to strengthening institutions at national and local level in designing and implementing adaptation project in the country. This activity will use grant finance from GCF.

Outcome 2: Protection of homestead from adverse effect of flood

Output 2.1: Raised homesteads above flood level

Activity 2.1.1: Raise homestead plinths in clusters

- 63. Climate-vulnerable people mostly live in low-lying areas. As a result, their houses easily get damaged by floods water. During flood, these people have to take shelter on roads and embankments. The baseline survey conducted by the CCCP found that 92% of the households needed elevated homestead plinths to become resilient to flood. Primarily driven by increased monsoon precipitation in the GBM basin, models on average demonstrate increased future flows in the three major rivers into Bangladesh (as much as 20%). Larger changes are anticipated by 2050 compared to 2030. The exact magnitude is dependent on the month. Given that most GCMs predict both an increasing trend of monsoon rainfall and greater inflows into Bangladesh, it follows that the flooding intensity will worsen. On average, models demonstrate that the flooded area increases in the future (over 10% by 2050). This is primarily in the central part of the country at the confluence of the Ganges and Brahmaputra rivers and in the south. Flood area estimates separate from the background variation primarily in August and September at the height of the monsoon.
- 64. The proposed project will raise homestead plinths of 45,000 beneficiaries above flood level in Brahmaputra and Teesta river char lands of the selected 5 northern districts. The women headed households and disadvantaged people will be given priority for raising plinths. The Brahmaputra is a mighty trans-boundary river which flows through China, India and Bangladesh. Bangladesh is located at the lowest part of the river. It is the 9th largest river by discharge and 15th by longest in the world. It is 8-12.9 km wide from bank to bank. It has a number of branch rivers like Teesta, Jamuna etc. The mean peak discharge of Brahmaputra is 67,200 m³. Brahmaputra River in Bangladesh transport 721 million tons of sediment each year (Mohammad Rezwanul Islam et al., 1999 in the article on 'The Ganges and Brahmaputra Rivers in Bangladesh: Basin denudation and sedimentation'). The plinths will be raised with these alluvial sand. On an average, roughly



6,000 cft. (cubic feet) alluvial sand may be required for a household. A cluster based approach will be adopted for raising plinths which was successfully implemented in recently concluded Community Climate Change Project (CCCP). The height of the plinths will depend on the local situation and be determined in consultation with the local community. Past highest flood level will be determined in consultation with the community people and 1 ft. will be added considering future uncertainty. The project will consider a hundred year flood height for raising homestead plinths. The beneficiaries will be encouraged to cultivate vegetables on the raised plinths round the year which they do not do now. This activity will be implemented in flood prone char areas of Nilphamari, Lalmonirhat, Kurigram, Gaibandha and Jamalpur districts. This activity will use grant finance from GCF.

- 65. Women in the flood vulnerable areas perceive that they are the most benefited groups among the flood affected communities due to raising homestead plinths. They think that they have to cook food for their family members. If the homestead inundates, they have to struggle for cooking food and collecting drinking water. The women think that male member of the household usually works outside. At home, they have to look after children, elderly, poultry and livestock resources and so on. If their homestead inundates, they have to move to embankment or flood shelters with all these belongings which intensify their sufferings in manifold.
- 66. Raising homestead plinths with tube-wells and sanitary latrines significantly reduces their sufferings. Some women thinks that they have to face sexual harassment during staying in flood shelter or embankment during flood. But if they can stay at their house, the probability of such harassment would be almost zero. Women's perception on slatted house for goat/sheep is positive. They think that this will increase their household income through protecting their goat/sheep from flood risk. This will help them in playing role in decision-making for their households.

Output 2.2: Reconstruction of climate resilient houses

Activity 2.2.1: Provide financial support to reconstruct climate resilient houses on raised plinth

67. It was a learning from the CCCP that after raising plinths, it requires reconstruction of houses on the raised plinths. The reconstruction works require financial support to make it climate resilient. PKSF will provide financial support as credit to reconstruct the climate resilient house of the selected beneficiaries. It is to be noted that it is the part of the earlier activity. Considering the future climate variability and extremes, the houses will be reconstructed on raised plinths with enough strong to resist nor 'wester. This activity not only considers the flood risks but also other climate related extremes like Nor 'wester, strong wind etc. Hence, the project will support to reconstruct storm resilient houses on the raised plinths using storm resilient materials like RCC pillars, iron angles, corrugated tin etc. will be used in re-constructing the houses. This activity will use loan from PKSF.

Outcome 3: Increased access to safe water and sanitation

Output 3.1: Installation of flood resilient tube wells

Activity 3.1.1 Install tube wells

68. The flood affected community severely affected by scarcity of safe drinking water due to inundation of drinking water sources including tube well. As the frequency and intensity of flood increasing and future flooding areas would be increased (described in section B1), the sufferings of the people from safe the scarcity of safe drinking water would be enormous. The problem was identified during implementation of CCCP and addressed by installing tube wells on raised plinths.



69. The final evaluation of earlier CCCP found that about 70% of the beneficiaries had been supported through tube-well facilities. Installation of tube-wells has increased access to safe drinking. It saved their time and distance required for collecting drinking water. This has become further effective as tube wells were provided following cluster based approach where at least 4 to 10 families are using and maintaining a tube-well. All the tube-wells have been installed above maximum flood level in flood prone areas. Installation of tube-wells also considered utilization of used water from the storage tank in the vegetable garden. The project will install 500 tube wells in the selected five districts which include Nilphamari, Lalmonirhat, Kurigram, Gaibandha and Jamalpur. This 500 tube wells will cover approximately 2500 households covering a total population of 11,250 beneficiaries. Women heads and disadvantaged groups will get preference while selecting the benficiares. The IE staffs will consult with the communities about site selection for tube wells installation. They will receive necessary technical advice from local offices of the Department of Public Health and Engineering (DPHE).

They will follow appropriate procurement method as per procurement guideline to be developed by EE. This activity will be implemented with grant finance from GCF.

70. Tube well is treated as social resource in the country. Women are comfortable using tube wells in groups. Regular maintenance of tube wells are very easy and least cost task. There are male members in the community can repair the tube wells. But if the problem is something big, the male members hire mason from nearby union or upazila headquarters. Maintenance of tube wells requires small amount which is affordable to the communities.

Output 3.2: Construction of sanitary latrines

Activity 3.2.1 Construct climate resilient sanitary latrines

- 71. Like tube well, sanitary latrines are also highly vulnerable to floods. The latrines are flooded and surroundings are contaminated with stool and other human wastes. This quickly spread over diseases in the affected community. The future vulnerabilities would be more severe due to increased frequency, intensity and areas of floods in Bangladesh. The project will provide 2,810 climate resilient sanitary latrines in the selected flood risks districts. This will directly benefit 2,810 HHs covering 12,645 direct beneficiaries. Women heads and disadvantaged goups will get preference while selecting the beneficiaires for latrines. These latrines are resilient to floods because these will be installed on the raised plinths. Water supply system will be ensured for maintaining hygiene which is not the current practiced in rural Bangladesh particularly in the remote char areas. The latrine was designed and demonstrated under CCCP which created huge demand of climate resilient hygiene latrines at the community level. Necessary hygiene sessions will be conducted in monthly group meetings. Individual household will be the owner of the latrine. Number of sanitary latrines
- 72. The CCCP successfully promoted good practices for health and hygiene among the beneficiaries. Only 9% households had access to sanitary latrines at the beginning of the Project. Due to CCCP interventions, access to sanitary latrine has been risen to 51% in the intervention areas. The project provided about 6,615 sanitary latrines currently used by around 21 thousand families, and 31 community latrines used by around 3,000 people. Latrines are well maintained by the users. The final evaluation of CCCP has rated the activity highly effective. The evaluation found that the latrine model is unique as it is women, aged and child friendly 2nd generation latrine. The IE will have technical officer for implementing this activity. This activity will be implemented with grant finance from GCF.

Outcome 4: Access to flood resilient livelihood



Output 4.1: Provide support to rearing of goat/sheep in slatted houses

Activity 4.1.1 Provide support to rear goat/sheep in slatted houses

- 73. Goat and sheep rearing is traditional livelihood activities for rural communities in Bangladesh. But traditional system of goat and sheep rearing is sensitive to floods, heat waves and cold waves. The goat is easily affected by different disease during rainy season due to living on wet floor, cold injury during winter and heat stress during hot period. Growth and reproduction of goat/sheep hampered by the above circumstances. As a results total production has reduced. But only slatted housing systems of goat and sheep can overcome these adverse situation.
- 74. Flood has become more localized and frequent which increases the vulnerability of goat and sheep. The CCCP has demonstrated improved technology and management to reduce these vulnerabilities. It was found in CCCP that goat and sheep rearing in slatted house reduces vulnerabilities of the animal and their impacts derived from flood leading increased productivity. The proposed project will promote slatted houses to protect goat and sheep from frequent floods and associated impacts. It will support the crop loss due to climate change related events. 10,000 women will be selected and trained for rearing goat and sheep in slatted houses. Women headed households and other disadvantaged groups will get preference while selecting beneficiaries for goat/sheep rearing. The total household members of the selected 10,000 women i.e. 45,000 are direct beneficiaries.
- 75. Training provided under the CCCP has further strengthened knowledge base together with good management practices. It was observed that incidence of different goat diseases (e.g. PPR, Goat Pox, Pneumonia etc.) reduced from 20% to 6.5% in the CCCP working area. As the goat/sheep population became healthier and more productive, the number of goat population increased by over 50%. Goat rearing has become a popular livelihood activity. One very important lesson here is that technological support is more effective and sustainable than only financial support. Another feature is that sheep are more resistant to climate change than goat. Hence, priority will be given on sheep rearing particularly in the char areas. This activity will be implemented in Nilphamari, Lalmonirhat, Kurigram, Gaibandha and Jamalpur districts. The IE staffs in consultation with the community people will implement the activity. PMU will guide and oversee the activity.
- 76. Both grant and loan financing will be use to implement this activity. Grant will be shouted from GCF for making slatted houses and training to the beneficiaries and loan from PKSF will be used for purchasing goat/sheep. This is a micro credit activity. The targeted beneficiaries including women are capable to repay the loan. As per loan policy of PKSF, poor and ultra-poor beneficiaries enjoy a 6 months grace period. The installment is also monthly basis. So, this loan is affordable to every beneficiaries as it is practical for them to repay. This loan will have different impacts on women in married households and women headed household. Because, women in married household may receive support from their husband to repay the loan but women heads will note have this type of support. Though impact is different, women heads will not face much challenge because they will repay the loan from earning from goat/sheep and from other income sources.

Output 4.2: Cultivation of flood tolerant crops

Activity 4.2.1 Cultivate flood resilient rice variety BRRI dhan 51 & 52 and BINA dhan 11

77. Climate change primarily affect the crop sector. Table 1 and 2 of section 1 has shown the impacts of climate change and related shocks on crop production. Elevated CO2 concentrations can have a significant positive



effect on yields for all crops and locations. Considering only temperature, precipitation, and CO2 changes, aus and aman median production increases by 2% and 4% by 2030 and 2050 respectively. Wheat also increases reaching a maximum of 4% by 2050. These distributions range approximately +/- 2%. **Boro** (winter) rice production declines under climate change scenarios, around 8% by 2080. These changes are conservative as it is assumed that farmers have limitless access to irrigation. Mean shifts in floods are estimated to reduce production of **aus**(summer rice) and **aman**(rain fed) rice between 1% and 4%. The narrow model distribution of flood impacts projected by different GCMs suggest a robust change, although changes are small in comparison to year-to-year variability.

78. Considering all climate impacts, the median of all rice crop projections show declining national production, with boro showing the largest median losses. However, for aus (-1.5%) and aman (-0.6%), the range of model experiments covers both positive gains and losses and do not separate convincingly from zero. Most GCM projections estimate a decline in *boro*(winter rice) production with a median loss of 3% by 2030 and 5% by 2050. Wheat production increases out to the 2050s (+3%). In each sub-region, production losses are estimated for at least one crop.

6,000 farmers representing a total of 27,000 beneficiaries will cultivate flood-resilient rice varieties BRRI dhan 51 & 52 and BINA dhan 11. These varieties can survive 15 days in water in submerged condition. Flood water in the selected areas usually recedes by 15 days unless it is an extraordinary flood. The IE staffs in consultation with CCAG members will select the farmers for cultivating these varieties. 50% of the farmers i.e. 3000 will be female of which 300 will be female heads. As one of the key responsibilities of women is to prepare food for the household, they have to suffer to manage food if there is a crop failure due to climate change related disaster like flood. In Bangladesh, women usually do not work in the crop field. Male members of the household or hired agriculture labour work in the crop field. Women take part in the pre-cultivation (seed storage etc.) and post-harvest period. In absence of male members, women can hire agriculture wage labour for crop cultivation and management.

The PMU staffs will provide technical guidance to the IE staffs. They will monitor the activity to ensure effective implementation. The activity will be implemented in selected all five districts. This activity will be implemented with grant finance from GCF.

79. The CCCP experienced that during flood in 2014, the selected varieties remained submerged for 17 days but still produced almost normal yield. However, few plots were damaged due to excessive sand deposition. In 2014 and 2015, the sub-project demonstrated 150 plots of flood-tolerant rice varieties -- BINA-11, BRRI dhan 51 and BRRI dhan 52. Among them, 10 plots had BINA 11, 83 plots had BRRI dhan 51 and 57 plots had BRRI Dhan 52. All the plots, except 2 plots of BRRI dhan 51, were affected by the flood. The crops on 67 plots (BINA 11 on 6, BRRI dhan51 on 38 and BRRI Dhan52 on 23 plots) survived. The survival rate of BINA-11 was 60.00%, BRRI Dhan-51 46.91% and BRRI Dhan 52 40.35%. The production rate of BINA 11 was 6.113 MT/ha, BRRI Dhan 51 2.788 MT/ha and BRRI Dhan 52 2.933 MT/ha. It is to be noted that the main reason of damaging the other plots is extensive sand deposition on the plots, it is not the flood water

Activity 4.2.2 Cultivate early and disease protective wheat variety BARI 26

80. The higher temperatures and changing rainfall patterns coupled with increased **flooding**, rising salinity in the coastal belt, droughts in the northwest and southwest, and drainage congestions are likely to reduce crop yields and crop production (MoEF, 2009). Decision Support System for Agro Technology Transfer



(DSSAT) model result shows that yield reduction will vary by types of crops and their growing season. IPCC estimates that, by 2050, rice production in Bangladesh could decline by 8 percent and **wheat by 32 percent (IPCC, 2007).** So, potential reduction of wheat production due to climate change in Bangladesh is significant. The project will promote BARI wheat 26 which is a short duration/early and disease protective variety cultivated in *Boro*season. Due to short life cycle, this variety can escape early flood in the selected districts. Because, early flood may occur in the month of April to May due to intensive precipitation in the Himalayan as well as inside the country.

81. The IE staffs in consultation with CCAG members will select 2,000 the farmers representing 9,000 beneficiaries. Like activity 4.2.1, 50% of the beneficiaries i.e. 1000 will be women, of which 100 will be female heads. They will provide training on management of this variety, provide seeds and other technical supports including compliance of IPM. PMU of EE will provide necessary guidance and approval for implementing this activity and monitor. This activity will be implemented with grant finance from GCF.

Activity 4.2.3 Cultivate vegetables in sand bars

- 82. In Brahmaputra char areas, lots of land remain fallow due to sand carpeting by flood each year. These lands can be brought under cultivation. Pit system vegetable cultivation (mainly pumpkin) technique provides the opportunity to cultivate vegetables in this area. In this system, farmers dig small holes measuring about 8 cubic feet (2ft X 2ft X 2ft) with a distance of 2.5 ft in between. Then they mix minimum 10kg of cow dung with sub-soil. Thus, after preparation of the pits, they sow the pumpkin seeds in the pits. Three to four seeds are sown in one pit so that at least one plant exists. They also use vermi-compost and a little quantity of chemical fertilizer as per IPM. The farmers use sex pheromone traps to control insects. This is a proven technology and implemented under CCCP.
- 83. IEs field level staffs in consultation with CCAGs will select farmers to promote this technology. A total of 2,000 women farmers representing 9,000 beneficiaries will be selected of whom all are women. PMU of EE will oversee and provide necessary guidance to the IEs staffs. This activity will be implemented using grant finance from GCF.
- 84. Each of the outcome, output and activities are closely interlinked. The first outcome i.e. strengthening capacities of institutions and community groups on climate change issues will direct achieving other outcomes to achieve because it will increase knowledge and awareness of the local institutions and communities on how to address climate change impacts and vulnerabilities. For example, this outcome will help community people to take decision on raising their homesteads above flood level which is the second outcome i.e. The targeted beneficiary protected their homestead from adverse effect of climatic change. Unless progressing the second outcome, the third outcome will not be possible to implement because the tube well and sanitary latrines will be installed on the raised homesteads plinths. Because, the households on the raised plinths will certainly require water and sanitation facilities to live a healthy life. But more importantly, these people live on agriculture which is highly vulnerable to climate change induced floods as described in section B1. Hence, the project will promote climate resilient crop production system as well as flood resilient livestock rearing system to make their livelihoods resilient to climate change. Thus, each of the component/outcome is interlinked.

B.3. Implementation/institutional arrangements (max. 750 words)

Implementation arrangement at PKSF level

- 85. **Role of PKSF:**PKSF will play dual role in this project because PKSF is Accredited Entity (AE) as well as Executing Entity (EE) for the project.
- 86. **Role of PKSF as AE:** PKSF's governing body will approve the FAA before signing. It will also provide necessary direction and guidance to the AE for quality implementation of the project.PKSF will arrange



signing ceremony Funded Activity Agreement (FAA) and project launching workshops. PKSF will facilitate developing ToRs for procurement of various services including audit, PMU staff recruitment, midterm and final evaluation etc. The AE will oversee the appraisal process for selecting the IEs. It will disburse funds to EE's project account. In addition, PKSF as AE will review progress reports, unaudited financial reports, evaluation reports etc. which will be submitted to the Secretariat of GCF. The AE will also ensure all compliances related to the project implementation including fiduciary standards, ESS, gender, tribal people etc.

- 87. **Role of PKSF as EE:** PKSF will establish a Project Management Unit (PMU) to manage the GCF-funded project. A Project Director/Coordinator (PD/C) will head the PMU and be in charge of the overall implementation of the GCF-funded project. He/she will directly report to a senior official of PKSF and be the Contact Person at PKSF for the GCF Secretariat and NDA. The PC will report to the GCF in a manner approved by PKSF.
- 88. The PMU will engage project personnel who will liaise with the selected IEs and monitor the implementation of their projects. The project personnel will be the PKSF contact points for IEs and will report to the PD/C.
- 89. A team of technical reviewer will be engaged in using their services when required to appraise projects. These technical experts will review the project locations.
- 90. The PD/C, after ensuring compliance to all fiduciary requirements, will submit the Sub-Projects (SPs) through PKSF as AE to the Governing Body for final approval. As Member Secretary of the Governing Body, the PKSF Managing Director will present the proposal.
- 91. PKSF as EE will monitor the implementation activities of IEs through both off-site and on-site monitoring systems. PKSF will adhere to Results-Based Monitoring (RBM) system to ensure reaching the project goals efficiently and effectively.
- 92. PKSF always implements its projects through its partner organizations, which it selects through PKSF's procurement policies and procedures. All these organizations are pre-qualified and enlisted through a transparent and fair technical procedure. The following four guiding principles will be applied to select the IEs:

(i) The project would adopt a strategic and holistic approach that targets clear climate change scenarios. Each of the demand of investment funded under the project would fit within the abovementioned scenarios;

(ii) Any organization receiving sub-project must demonstrate how it will contribute -- through the community-level interventions -- to advancing the skills and knowledge required to adapt to extreme climate variability and climate change. Organizations requesting funds for community-based adaptation must have an established presence in the relevant areas where the project will be implemented. The climate change programme wouldpreferably build upon the foundation and social capital of other projects that the organization is already implementing;

(iii) The projects would include community leadership and local government bodies while ensuring gender sensitivity; and

(iv) Emphasis would be placed on transparency, information monitoring and learning to ensure sustainability of the programme and replication of those in other similar regions of Bangladesh.

(v) CCAGs will play significant role in ensuring transparency and accountability of the project at community level.

93. The project under implementation will be subject to monitoring both by the IEs, and PKSF as AE and PMU (PKSF as EE). The basis for monitoring is the result based framework of the project as mentioned



in section D. A detailed Monitoring and Evaluation Manual consistent with PKSF's overall Results-Based Monitoring System and Results Framework will guide the monitoring practices of PKSF and IEs.

- 94. The monitoring process under the PMU will have three functions. First, through monitoring by PKSF and PMU will ensure accountability of the IEs to deliver the Outputs and outcomes. This implies that the resources are used efficiently for the proposed activities. Second, the monitoring will establish proper documentation of the implementation process and achievements at different levels (Output, Outcome and Impact). Third, the monitoring will help gather learning from the process. Since adaptation experiences are highly contextual, documentation of learning under different context will add to the knowledge and subsequently to the wisdom for future actions. In short, the role of accountability is significant in case of Output, whereas learning becomes a core issue for monitoring at the Outcome and Impact-level achievements.
- 95. The following flow chart including 7 steps characterizes the institutional arrangement of the proposed project :





97. Fund flow of the project:

For this project, PKSF is AE as well as EE. The fund will be directly disbursed to PKSF from GCF. PKSF will receive the GCF Proceeds in a special account in its name for this Project held in the Bangladesh Central Bank ("GCF Account") from which the GCF Proceeds will be transferred to PKSF's Project specific account in a commercial bank in local currency. PKSF will reimburse the fund to the implementing partners based on satisfactory performance. The implementing entities will make necessary expenditure for the beneficiaries to increase their resilience. One of the criteria for selecting the IEs is that they must have established offices in the project area. This office mainly operates credit programme financed by PKSF for output 2.2 and 4.1. The loan under the proposed project will be disbursed through **PKSF's mainstream credit programme to the IEs** (as they are also partner organizations of PKSF). In addition, the IE will establish a project management unit at their respective offices. This PMU will operate the grant part and the credit officers will operate the loan part. This is the operational procedure of blending projects/programmes of PKSF.

98. Fund flow diagram



99. Implementation arrangement at IE level

The partner organizations who will qualify to implement this project at the community level are the IEs, which have been procured through PKSF's applicable procurement policies and procedures, are further described below:

- 100. The participating entities will mainly implement the activities at the community level. They will monitor the output, outcome and impacts of the activities as well as impacts on environment and society. They will also ensure gender participation at the organization and community level. They will also report to PMU of PKSF on the progress and impacts of the project.
- 101. The IEs will employ a dedicated monitoring officer who will report to the Chief Executive or senior official, not directly entrusted with the implementation of the programme. He/she will implement the Monitoring Framework as envisaged in the project proposal and will produce quarterly activity



monitoring reports based on the Activity to Output Monitoring (ATOM) agreed upon by both parties. The Monitoring Officer will undertake the outcome-level monitoring half-yearly based on the agreed Outcome Assessment Sheet (OAS) and impact-level monitoring annually based on the agreed Impact Assessment Sheet (IAS) which will be prepared taking indicators of Impacts and Outcomes into account. He/she will post the information in the assigned fields of the PIPs and in the PKSF server online as well.





- 102. Selection of Implementing Entity: A procurement committee will be formed as per PKSF's procurement policy. The committee will invite Expression of Interest (EOI)through 4 national dailies (both Bengali and English) from the potential IEs. The eligible criteria for submitting the EOI are:
 - a) Permanent existence of the organizations in the project areas.
 - b) At least five years of experience in implementing climate change related projects or programmes.
 - c) A good track record of financial transection (At least BDT 1 crore annually for the last three years)
 - d) Must be extra ordinary, excellent or at leastgood as per PKSF's assessment using defined assessment criteria which include financial efficiency, economic efficiency, operational efficiency, growth indicators, financial strength & risk management, accounting & internal control system, social performance, human capacity and governance.
 - e) Valid legal documents including registration.
 - f) Organizations will be ineligible on the grounds of involvement in Money Laundering and Terrorist Financing.
- 103. It is to be noted that PKSF has set criteria for periodic evaluation of the performance of its partner organizations. The criteria includes financial efficiency, economic efficiency, operational efficiency, growth indicators, financial strength & risk management, accounting & internal control system, social performance, human capacity and governance. Each of the criteria has several indicators to assess performance of the POs. Based on the performance criteria, the organizations are categorized as extra ordinary, excellent, good, average, and sub-standard and requires special attention (RSA). These criteria will also be considered for eligibility. PKSF will ensure completion of AML/CFT due-diligence with satisfactory results in the selection process for IEs and Service Providers.
- 104. The procurement committee will evaluate the submitted EOIs and prepare a short list of the potential IEs. Then the selected IEs will be invited to submit technical and financial proposal. A highly technical evaluation committee will evaluate the proposals. Quality and Cost Basis (QCBS) method will be used to evaluate the proposals. Thus, the competitive IEs will be selected.

C. FINANCING INFORMATION								
С.1. Т	C.1. Total financing							
(a) Requested GCF funding (i + ii + iii + iv + v + vi)		9.68	million USD (\$)					
GCH	Financial Instrument	Amount	Currency	Tenor	Pricing			
(i)	Senior loans	Enter amount	Options	Enteryears				
(ii)	Subordinated loans	Enter amount	Options	Enter years	Enter %			
(iii)	Equity	Enter amount	Options		Enter % equity return			
(iv)	Guarantees	Enter amount	Options		Enter %			
(v)	Reimbursable grants	Enter amount	Options					
(vi)	Grants	9.68	million USD (\$)	<u>4</u> years				
(b) Co-financing information		Total amo	Currency					
		3.64	million USD (\$)					



Name of institution		Financial instrument	Amo	unt	Currency	Tenor	Prici ng	Seniority		
Palli Karma-Sahayak Foundation (PKSF)		Subordinated Loans	3.3	0	million USD (\$) years	$\frac{13.5}{\frac{\% \text{ at}}{\text{flat}}}$	Options		
Palli Karma-Sahayak Foundaton (PKSF)		In kind	0.34		million USD (\$) <u>4</u> years	Enter %	Options		
Click here to en	ter text.	Options	Enter ar	nount	Options	Enter years	Enter %	Options		
Click here to en	ter text.	Options	Enter ar	nount	Options	Enter years	Enter %	Options		
(c) Total inve	stment		Amou	nt		m	Currency			
(c) - (a) + (b) (d) Co-financing ratio (d) = (b)/(a)	atio	1:0.38	13.32 million USD (\$) 1:0.38							
(e) Other financing	5	Please explain if a	Please explain if any of the financing parties including the AE would benefit from any type of							
arrangements for a project/programm page)	the e (max ½	Not applicable	guarantee e.g. sovereign guarantee, MIGA guarantee, etc. Not applicable							
C.2. Financing by	component									
	Output			GCF financing		Co	Co-financing			
Outcome			Indicative cost (USD)	Amount	Financial Instrume nt	Amount	Financi al instrum ent	Name of instituti ons		
Outcome 1: Institutions (Implementing Entities) and community groups strengthened capacity on addressing climate change	1.1 Clima adaptation g formed and	te change groups (CCAG) operationalized	233,500	41,50	00 Grant	192,000	in Kind	PKSF		
	1.2 Prepativulnerabilit adaptation a	ration of y assessment and action plan	20,000		0	20,000	in Kind	PKSF		
	1.3 Trainings and workshops on Climate Change conducted for Beneficiaries and stakeholders		703,500	703,50	0 Grant					
	1.4 Preparation and dissemination of knowledge products		49,600	49,60	00 Grant					
	Sub-total		1,006,600	794,60	0 Grant	212,000				
Outcome 2: Protection of	2.1 Raised homesteads above flood level		4,194,000	4,194,00	0 Grant					
homestead from adverse effect of flood	2.2 Re-con climate resi	2.2 Re-construction of climate resilient houses			Grant	1,500,000	Loan	PKSF		
	Sub-total		5,694,000	4,194,00	0 Grant	1,500,000				


Outcome 3:	3.1 Installation of resilient tube wells	405,600	405,600	Grant			
Increased access to safe water and sanitation	3.2 Construction of sanitary latrines	1,130,000	1,130,000	Grant			
	Sub-total	1,535,600	1,535,600	Grant	0		
Outcome 4:	4.1 Rearing of goat/sheep in slatted houses	3,259,200	1,459,200	Grant	1,800,000	Loan	
Access to flood resilient livelihood	4.2 Cultivation of flood tolerant crops	1,095,040	1,095,040	Grant			
	Sub-total	4,354,240	2,554,240	Grant	1,800,000		
	12,590,440	9,078,440	Grant	3,512,000			
Contingency (Lump sum) Project Management Cost (PMC)		250,000	250,000	Grant			
		485,300	352,900	Grant	132,400	In Kind	PKSF
	Grand Total	13,325,740	9,681,340	Grant	3,644,400		

105. 'Outcome1: Institutions (Implementing Entities) and community groups strengthened capacity on addressing climate change' is an important component for the project because successful implementation of the project will mainly depend on this outcome. The estimated budget for this outcome is USD 1,006,600 which is 8% of the total project cost or 10% of GCF budget. Outcome 2, 3 and 4 are related to technology transfer. The total estimated amount for these three components is USD 11,583,840 which is 87% of the total project cost or 120% of GCF budget. In addition to grant from GCF, the technology transfer components includes a loan of USD 3,300,000 from PKSF as co-finance.

C.3. Justification for GCF funding request (max. 500 words)

Rationale for GCF finance

- 106. Bangladesh is one of the most vulnerable countries in the world to the effects of climate change, which poses a significant risk to the economic development of the country. According to the Climate Change Vulnerability Index of 2015, Bangladesh's economy is more at risk to climate change than any other country. The economic losses due to climate change in Bangladesh is around 1 to 2 percent of GDP (currently it is around 3 billion USD (Nationally Determined Contribution of Bangladesh, 2015). The World Bank study in 2009 suggests that climate change has broader economy-wide implications. This will cost Bangladesh US\$26 billion in total GDP over the 45-year period 2005-2050. This is equivalent to US\$570 million overall lost each year to climate change, or alternatively an average annual 1.15 percent reduction in total GDP. Average loss in agricultural GDP due to climate change is a third of the agricultural GDP losses associated with existing climate variability. Agricultural GDP will be 3.1 percent lower each year as a result of climate change (US\$7.7 billion in lost value-added). Uncertainty surrounding GCMs and emission scenarios means that costs may be as high as US\$1 billion per year over 2005-2050 under less optimistic scenarios. Moreover, these economic losses will rise in later years, thus underlining the need to address climate change related losses in the near-term.
- 107. The proposed project under SAP will address two impact areas of GCF i.e. A1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions and A2.0 Increased



resilience of health and well-being, and food and water security. These impacts of the project will be achieved through undertaking appropriate adaptation measures including cluster based homestead plinths, flood resilient water and sanitation system, climate resilient agriculture and flood resilient goat/sheep rearing. GCF will finance to these activities because these will particularly address the threats of climate change. For example, the normal development do not consider the future impacts of climate change, but the activities analyzed the future vulnerabilities and hence proposed interventions. The plinth raise activity will consider 1 ft. higher than 100 years flood height considering the future vulnerabilities and uncertainties which is not considered in the conventional development process. The project will promote flood resilient crop varieties because model results shows that flooding area will be increased in future (detail in section B1). Analysis also shows that intensity and frequency of flood will increase in future. All these are additional losses due to climate change which are considered in the WB's study as stated in the earlier paragraph. Besides, tube wells and sanitary latrines will be installed on raised plinths to protect them from floods. Thus all the proposed activities are related to additional threats from climate change to which GCF is mandated to finance.

Incremental cost

108. Most of the activities are designed considering present and future impacts of climate change in targeted areas. Without climate change, the project would not propose homestead plinth raise, slatted house for goat/sheep rearing, flood resilient cropping, training on climate change issues etc. So, the estimated cost for all these activities are considered as incremental cost. Thus, the total incremental cost of the project is equal to the amount of grant requested from GCF which is US\$9.68million.

Typology of the country and its economic status

- 109. Bangladesh is a LDC with high demand of grants to address the climate change vulnerability. Bangladesh government tries to respond to disaster risks in related all sector. Bangladesh Government developed Bangladesh Climate Change Strategy and Action Plan (BCCSAP), National Adaptation Programme of Action (NAPA) etc. to address climate change. The country is currently preparing National Adaptation Plan (NAP). Moreover, the government integrated climate change in all other development strategies including Perspective Plan of Bangladesh 2010-2021, 7th five years' plan, Country Investment Plan (CIP) etc. NDC of Bangladesh estimated that implementation cost for adaptation activity would be USD 40 billion up to 2030. So, GCF contribution to this project will be in need for building resilience to climate change of the climate vulnerable people of the country.
- 110. The Bangladesh government tries to minimize the losses and damages caused by the impacts of climate change. The table below summarizes strength of government initiative and areas where GCF support would provide needed value.

Climate Change and	Strengths of current Government support	GCF value Added
Development Strategies		
Seventh Five Year Plan FY 2016-FY 2020	7th Five Year Plan focuses on issues related to development of rural areas including increasing local production, solving energy problems, reducing poverty	Climate change is the priority in the 7 th Five Year Plan due to limited finance government cannot address all the adaptation issues of climate change. Hence, the GCF investment is important to address climate change impacts to secure the development of the country as well as reducing vulnerabilities.

Perspective Plan of Bangladesh 2010-2021	Bangladesh government has prepared a long term development goal for poverty reduction and ensuring basic needs of its population which is known as 'Vision 21'. A perspective plan has been prepared for the period of 2010-2021 to achieve the vision.	Again, climate change issues are addressed here but due to lack of finance government cannot address all the adaptation issues. The proposed project aims to enhance resilience of the climate vulnerable community where GCF funding will address some of the adaptation issues of Bangladesh.
Bangladesh Climate Change Strategy and Action Plan (BCCSAP), 2009	Bangladesh prepared and subsequently adopted the "Bangladesh Climate Change Strategy and Action Plan 2009" to address the adverse impacts of climate change as well as protect global warming. The government developed Bangladesh Climate Change Trust Fund (BCCTF) from its own revenue and Bangladesh Climate Change Resilience Fund (BCCRF) from development partners to implement BCCSAP. The government allocated BDT. 3500 crore(420 million USD) to BCCTF. The BCCRF raised USD 190 million of which 130 was received and implemented	Under NDC it is estimated that Bangladesh needs 40 billion USD to meet its adaptation needs from 2015 to 2030. BCCTF and BCCRF together could not raise this amount. As the proposed project comply several programmes of the BCCSAP, GCF funding would be valuable contribution for this project.
National Adaptation Programme of Action (NAPA)	As a response to the decision of the Seventh Session of the Conference of the Parties(COP7) of the United Nation Framework Convention on Climate Change (UNFCCC) Bangladesh prepared the National Adaptation Programme of Action (NAPA, 2005, revised 2009)	National Adaptation Programme of Action (NAPA) has identified 45 urgent and immediate adaptation project/programmes adaptation needs. Only three projects has been implemented/under implementation. Implementation of NAPA is constrained again by limited financial resource from LDCF.
National Determined Contribution (NDC, 2015)	The government calculated the adaptation cost up to 2030 will be around 42 billion USD.	Bangladesh is already under stress to meeting basic needs and services of its huge population. Climate change puts extra pressure on the country's revenue budget. Thus, the country requires external funding sources to address the climate change issues.

Gender consideration

The project is well aware about gender mainstreaming in the project activities. Hence, the proposed project has taken a gender responsive and transformative approach to climate change vulnerability, considering gendered differences in access to resources, ability to pursue adaptive livelihoods and institutional support and capacity building, and this has fundamentally shaped all of the activities and outputs of the project. The proposed project recognizes women's essential contributions as leaders and agents of change in the face of a changing climate and resource constraints. The project will select 20,000 households covering 90,000 direct beneficiaries for transferring knowledge and adaptation technologies proposed under this project. 50% of the total direct beneficiaries i.e. 45,000 will be women. It is already mentioned that the project will form 20,000



CCAGs. Considering the gender sensitivity of the proposed project, 80% of the CCAG members i.e. 16,000 will be women beneficiaries (among the beneficiaries under PKSF, around 90% are women). Among 16,000 women CCAG members, 10% or 1600 will be women heads. The project will select mostly women because they usually teach their children at home. They will also teach their children about climate change issues what they will learn through training and meetings. Thus, climate change concepts and practices would transmit to the next generation which will have long term implication of addressing climate change in this country. Besides, necessary female staffs will be ensured at the field level so that women members can easily express their opinions and actively take part in the project activities. Considering gender integrity, the project proposes more sanitary latrines (#2810) than tube wells (#500) to outreach maximum number of women. Allocated budget for female beneficiaries also very high which is estimated US\$9.33 million.

111. Besides, CCCP experiences showed that women were benefitted both economically and socially due to engage them with CCAG. In flood prone areas, women usually are not willing to go to flood shelter during flood. They prefer to stay at home because they feel safe at home than at shelter. Most important lesson was that they could talk about climate and disaster in their locality. They also felt empowered because they contributed to family income through vegetable cultivation, goat rearing etc. We expect the similar outcomes in the proposed project. The CCCP faced some challenges to engage the CCAG with the women members of the families. Initially, the women in the vulnerable areas were not much supportive due to shyness and hesitation. Besides, climate change was new issue to them. However, motivation through disseminating proper information helped to overcome this challenge.

The activities are designed in a way that the women will be mostly benefited economically and socially. The important livelihood option selected for the proposed project is goat and sheep rearing in slatted houses. The proposed project will select only women participants for implementing the activity because traditionally, all most all women in rural areas of Bangladesh including flood zone commonly rear livestock animal including goat and sheep. But the traditional process of management is a constraint of achieving expected benefit of rearing goat and sheep. The proposed project will provide support technological support and capacity building training to make it climate resilient and sustainable livelihood adaptation to climate change

The ECCCP-Flood project considers not only the benefits of women, but also considers the inter-sectional vulnerability to changing conditions, of those beneficiaries facing additional marginalization due to poverty, and social exclusion. The project design recognizes to build adaptive capacity in regards to changing climatic conditions, by supporting climate resilient livelihoods, resilient homestead and better integration into local value chains, in which women are already playing a growing role.

The ECCCP-Flood project will accommodate GoB's policies and strategies on women's resilience and their critical role in preparedness and recovery from disasters and the necessity of shifting livelihoods towards adaptive options, efforts remain limited compared to the actual and acute needs of women. The Gender Assessment expands on the information provided throughout the proposal, by providing additional information on the national and local gender context, particularly in regards to women's access to resources, their role in decision-making and the gendered aspects of local livelihoods, and provides the basis for, and lessons on which, the Gender Action Plan (which is reflective of the overall project design)



has been built. The activities of the proposed project have been selected considering that women can easily implement to enhance their capacity and increase their resilience to climate change.

112. For promoting women's empowerment through the project interventions, we will consult not only with the women members of a family, but also with the male members and other guardians. This will help eliminate hesitation and shyness. Besides, IEs will build good rapport by disseminating appropriate information with the vulnerable community.

Contribution to GCF's Environmental, social and IP policies

113. The project will comply GCF's environmental, social and IP policies through using environmental screening tools of GCF and preparing environmental and social action plan. The screening results and ESAP in GCF's template is provided in Annex 12. The project will also carefully consider the values of the IP in the project areas in consistent with GCF's IP policy. The project did not receive free, prior consent from the IP community because there is no IP in the proposed project areas.

Grievence Redress Mechanism

114. Grievance Redress Mechanism (GRM) will be established at central (PKSF) and IE level to deal with any complaints/grievances about environmental issues. At the IE level, the Union Parishad (U/P) Chairman or his/her nominated representative from the U/P will be the Local Grievance Redress (LGR) focal point. At the PKSF central level, the Programme Officer (Environment) or any other person/staff nominated by the Project Coordinator of PMU will be Central Grievance Redress (CGR) focal Point. The aggrieved persons or entities will submit the complaints/grievances in sealed envelopes to the selected IE's office duly entered in the Grievance Register (GR) and will collect a receipt with entry reference to the GR. IEs will <u>not</u> open the envelopes, but inform the LGR focal point about receipt of complaints and schedule hearings as per his/her advice. In open meetings, the selected implementing entities will facilitate the LGR focal Point to hear and discuss the complaints and resolve them in view of the applicable guidelines. The aggrieved person, if female, will be assisted by a female U/P member in hearing, and if from a tribal community, by a tribal representative. LGR focal Point with the help of IE will ensure sending a copy of the complaint by postal mail, email or other means to the Project Coordinator at the PKSF headquarters.



115. The IEs will forward the unresolved cases with all proceedings to the Central Grievance Redress (CGR) focal point within 7 days of taking decision by the LGR focal point. Unresolved cases forwarded by IEs will be registered in the office of the CGR focal point and disposed within 15 days. If any decision made by CGR focal point is unacceptable to the aggrieved persons, he/she will forward the complaints with all

proceedings to the PKSF Managing Director (MD). The MD will review and resolve the cases which will be final for PKSF. The MD may seek advices from the PKSF Chairman for any critical issues as per his discretion. A decision agreed by the complainants at any level of hearing will be binding on the concerned IEs and PKSF. The GRM will, however, not preempt an aggrieved person's right to seek redress in the courts of law.

116. The aggrieved persons or entities will have the option to lodge the complaints directly to the Central Grievance Redress (CGR) focal point if they are against the IE, to the PKSF MD if they are against the PKSF project management. or directly to the Governing body/chairman of PKSF if there is any issue related to PKSF itself. institutional The arrangement of Grievance Redress Mechanism is illustrated below:



C.4. Exit strategy and sustainability (max. 250 words)

- 117. The project will form community group and build their capacity by providing training, awareness and linking to different stakeholders related to project interventions. The community will be well capable to prepare their action plan and demonstration to the locality. To ensure successful exit strategy, community will prepare and demonstrate community level adaptation action plan as per their needs. They share their indigenous knowledge and experience in their own community and perform the best practices to overcome the adverse climatic effects. So, community can take responsibilities to continuing project activities in the long run. Plinth raising at household level and resilient water and sanitation activities will be maintained by communities themselves.
- 118. Community will involve in various process particularly in monitoring process. The IEs will be handed over the responsibilities to the community. After project completion the community will effectively communicate with local government institutions to continue the support for different safety net program as well as enrollment of IEs Micro finance program. IEs, being a national based NGOs and having permanent set up at the community, will continue to working with the community through their core micro-



credit programmes. IEs staff will follow-up and conduct meetings with the community people to discuss different issues related to project activities and prepare action plan to overcome the potential extreme situation.

- 119. During the project, IEwill enhance the capacity of the community people by the way of knowledge, awareness and skills to safeguard their investments and assets. Further Implementing IEs have already an on-going long term working relationship through community, which cover the target areas and so, on completion of the programme, the core activities will continue to be supported by implementing partner.
- 120. The project will arrange phase out workshop to share outputs and outcomes that are achieved through this project intervention. Major challenges and other findings will be shared with the relevant stakeholders Feedback/opinion and recommendation from the phase out workshop will be noted that will help the project for future development. All assets to be demonstrated will be accompanied by comprehensive skills through training and financial support.
- 121. Community will prepare action plan and will demonstrate their plan as their need. They will share their indigenous knowledge within the community and performed the best practices to overcome the adverse climatic effects. So, community can take responsibilities to continuing project activities in long run. Plinth raising at household level and installation of WASH related activities will be maintained by own initiative and community infrastructure like repairing of community place and raised bazaar & school will be managed and maintained by them. Community contribution in most of the activities will help the beneficiaries to own it and it will strongly ensure the proper management of the project provided by the IEs will be continued. An operation and maintenance plan is presented below:

Name of Structure	Timeframe	Responsibility	Source of fund	Remarks
Plinths	Annual	Plinth owners	Plinth owners	IEs will ensure
		Climate Change	Climate Change Action	implementation of the
Tube wells	Quarterly	Action Group	Group	plan as they will
Climate resilient				continue their financial
sanitary latrines	Daily	Latrine user HH	Latrine user HH	support to the
Slatted house of goat/sheep	Daily	Owner of the house	Owner of the house	beneficiaries from their core programme (Please see section C4 of the response document).

122. The project will disburse around 25% of the total finance as credit and the IEs will be responsible to recover the loan amount. Through this process the existence of IEs in project areas will be ensured. The IEs will coopt the beneficiaries after project period for financing in the long run.

C.5. Financial management/procurement (max. 300 words)

Financial Management and Audit

123. The project will follow AE's guidelines on Financial Management and Procurement. PKSF, having long experience in managing projects supported by the donor and other development partners, has developed efficient Financial Management and internal control systems. PKSF has an established finance division headedby a Deputy Managing Director for Finance. In order to monitor the activities of its partner organizations, it also has in place a properly staffed internal audit cell headed by a General Manager who directly reports to the Managing Director of the organization. PKSF has built up a system and capacity for disbursing fund to IEs based on efficient review procedures in coordination with field level monitoring. Anindependent audit firm carries out external audit of PKSF, and will continue to do so for the PKSF's



financial management of the project. As per GCF guideline PKSF will be provided financial management report and letter to GCF within 06 months of audited period of the AE's fiscal year end. Both internal and external audit is carriedout once in a year. External audit is carried out using International Accounting Standard (IAS).

Disbursement and Funds Flow:

124. The funds for the project will flow through a Segregated Designated Account (DA) to be opened by PKSF in a commercial bank. The disbursement is report based; i.e., an advance to the DA is made on submission of Quarterly Financial Reports (QFRs), including a forecast of projected expenditures for the next, two calendar quarters. Further advances as required would be made to the DA based on updated expenditure forecasts for the subsequent two quarters having the balance available in the Designated Account including the balances in the bank accounts of the IEs at the end of the reporting quarter. The amount spent from the DA on eligible expenditures is documented as project expenditures based on claims for documentation in the QFRs, and the advances to the DA is adjusted accordingly.

125. Fund flow diagram:



Books of Accounts and Financial Reporting:

126. The accounts of PKSF are prepared in accordance with International Accounting Standard (IAS) as adopted by the Institute of Chartered Accountants of Bangladesh (ICAB), on a going-concern basis under Generally Accepted Accounting Principles. PKSF's accounts are maintained on accrual basis under historical cost convention. The accounting manual of PKSF has been consistently followed for preparation of softwarebased final accounts.

Procurement

127. PKSF has own procurement guideline which is fully consistent Public Procurement Act, 2006 and Public Procurement Rules, 2008. PKSF will follow its procurement policy. As per the policy, IEs will prepare and submit procurement plan and get approval from PKSF. First package of goods and services will be subject to prior review. Rest of the packages will be reviewed by the PMU staffs at the field office of the IEs after procurement is over. By this way PKSF will ensure that all procurements conducted as per policy and rules of PKSF.



Final

(if applicable)

- 128. PKSF recruits audit firm as per PKSF procurement rules for auditing all accounts and management of PKSF including each project. This audit firm submit separate audit report for each project. The procurement committee of PKSF carry out the whole procurement activities. The committee calls for Expression of Interest (EOI) in the national dailies in both Bangla and English newspapers. Only the enlisted firm can submit the EOI. The procurement committee evaluates the applications and makes recommendation to select the firm. The Governing Body of PKSF select the firm in its Annual General Meeting based on the recommendation.A detailed procurement plan as per GCF format is presented in Annex 8.
- 129. Tax Exemption: Value Added Tax and Income Tax will be applicable as per Public Procurement Rules, 2008 of the Government of Bangladesh. PKSF enjoys Income Tax exemptions. Hence, GCF proceeds will not be used to finance any taxes in relation to the Goods and Services to be procured under the Project.

D. Logical Framework

This section refers to the project/programme's logic framework in accordance with the GCF's <u>Performance Measurement</u> <u>Framework</u> under the <u>Results Management Framework</u> to which the project/programme contributes as a whole, including in respect of any co-financing.

D.1. Paradigm shift objectives

Diff i utungin sin	it objec						
<i>Increased climate-resilient</i> <i>sustainable development</i> <i>Increased climate-resilient</i> <i>sustainable development</i> <i>Increased climate-resilient</i> <i>sustainable development</i> <i>Increased climate-resilient</i> <i>sustainable development</i>						climate res cal level. Cur 9,945 branc own workin , they will as enting these core program d sub-national formation fro g process. T and sanitati- knowledge presentatives will help in nts.	ilient sustainable rently 278 partner ch offices. These g areas. As these rrange finance by activities beyond mes. Besides, the al levels including om the knowledge hey will consider on system as well documents. As a s in the governing corporating these
D.2. Impacts meas	ured by	GCF indicators					
			Means of		Tar Mid-term	get	
Expected Result		Indicator	Verification	Baseline			Assumptions

(MoV)



A1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions	A1.1 Change in expected losses of lives andeconomic assets (US\$) due to the impact of extreme climate-related disasters	Quarterly monitoring report, evaluation report by AE and EEs, Bangladesh Bureau of Statistics, situation reports of the Department of Disaster Managemen t etc.	Average 120 Losses of lives Loss of economic assets: US\$13 million (as per BBS, 2015) for the targeted 5 districts	Reduced Losses of lives by 20% Reduction of loss of economic assets for the targeted population by US\$ 1 million	Reduced Losses of livesby 40% Reductio n of loss of economi c assets for the targeted populatio nby US\$ 2 million	The selected communities particularly the women members of the community understand climate change impacts and practiced the prescribed adaptation options
A2.0 Increased resilience of health and well-being, and food and water security	A1.2 Number of males and females benefiting from the adoption of diversified, climate resilient livelihood options (including, fisheries, agriculture, tourism, etc.)	Quarterly monitoring report, evaluation report by AE and EEs,Banglad esh Bureau of Statistics, situation reports of the Department of Disaster Managemen t etc.	Female: 0 Male: 0	Female: 30,000 Male: 30,000	Female: 45,000 Male: 45,000	The selected communities particularly the women members of the community understand climate change impacts and practiced the prescribed adaptation options
	A2.2 Number of food secure households (in areas/periods at risk of climate change impacts)	Quarterly monitoring report, evaluation report by AE and EEs	0	12,000 HHs	20,000 HHs	These households are willing to accept and practice adaptation technologies in the flood vulnerable areas

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	A2.3 Number of males and females with year round access to reliable and safe water supply despite climate shocks and stresses	Quarterly monitoring report, evaluation report by AE and EEs	Female: 0 Male: 0	Female: 15,000 Male: 15,000	Female: 22,500 Male: 22,500	CCAG meeting on hygiene and sanitation. Enhanced climate sustained (flood resilient) water supply, and capacity building will increase resilience and adaptive capacity of targeted people. Distance between tube- well and latrine will be maintained.
		Quarterly monitoring report, evaluation report by AE and EEs	Homestead and household asset: 0 Latrine: 0	Homestead and household asset: # 6,000 Value: US\$ 1.55 million	Homeste ad and househol d asset: #10,000 Value: US\$ 3.45 million	Awareness raising through CCAG meeting on hygiene and sanitation.
A3.0 Increased resilience of intrastructure and the built environment to climate change	A.3.1 Number and value of physical assets made more resilient to climate vulnerability and change, considering human benefits		Tube-well: 0	Latrine: # 1,500 Value: US\$ 0.56 million Tube-well: # 300 Value: US\$ 0.18 million	Latrine: #2,810 Value: US\$1.04 million Tube- well: #500 Value: US\$ 0.30 million	Enhanced climate sustained water supply and capacity building will increase resilience and adaptive capacity of the targeted people.
						Will maintain distance between tube- well and latrine



D.3. Outcomes measured by GCF indicators									
		Means of		Tai	rget				
Expected Outcomes	Indicator	Verification (MoV)	Baseline	Mid-term (if applicable)	Final	Assumptions			
	Number of technologies and innovative solutions transferred or licensed to promote climate resilience as a result of Fund support	Project reports, project data	 0 flood tolerant rice varieties 0 short duration and disease protectiv e wheat variety 0 sand bar vegetabl e cultivati on 0 Slatted housing for goat/she ep rearing 0 flood resilient tube wlls 0 Flood resilient sanitary latrine 	3 flood tolerant rice varieties 1 short duration and disease protective wheat variety 1 sand bar vegetable cultivation 1 Slatted housing for goat/sheep rearing 1 flood resilient tube wlls 1 Flood resilient sanitary latrine	3 flood tolerant rice varieties 1 short duration and disease protective wheat variety 1 sand bar vegetable cultivation 1 Slatted housing for goat/sheep rearing 1 flood resilient tube wlls 1 Flood resilient sanitary latrine	Beneficiaries adopted and practiced transferred technologies			
A5.0 Strengthened institutional and regulatory systems for climate-	A5.1 Institutional and regulatory systems that improve incentives for	Quarterly monitoring report, evaluation	0 institutio nal	selected Institutions implemente d 2 plans to address	Selected Institutiona s implement ed 3 plans	Local NGOs will participate in the appraisal process. They are capable in			



responsive planning and development	climate resilience and their effective implementation	report by AE and EEs	systems' plans 0 CCAG	climate change (establishe d focal persons and recruit specialized staffs on climate change) 1,000 CCAGs	(establishe d focal persons and recruit specialized staffs and integrate climate change) 1,000 CCAGs	implementing climate change adaptation project. Awareness raising among the targeted beneficiaries through CCAG
A7.0 Strengthened adaptive capacity and reduced exposure to climate risks	A7.1 Use by vulnerable households, communities, businesses and public- sector services of Fund- supported tools instruments, strategies and activities to respond to climate change and variability	Quarterly monitoring report, evaluation report by AE and EEs	0% of the selected househol ds and commun ities use fund supports tools and strategie s	10% of the selected households and communiti es use slightly effective, 60% use moderately effective and 10% use highly effective fund- supported tools instruments , strategies and activitie increass to respond to climate change and variability	5% use slightly effective, 50% moderately effective and 30% highly effective	Awareness raising among the targeted person, Raised plinth above flood level , year round vegetables and fruits cultivation on the raised plinth and climate resilient crops cultivation can ensure to strengthen adaptive capacity and reduced exposure to climate change
A8.0 Strengthened awareness of climate threats and risk- reduction processes	A8.1 Number of males and females made aware of climate threats and related appropriate responses	BBS, Quarterly monitoring report, evaluation report by AE and EEs	Female: 0 Male: 0	9,000 people become low aware on climate change, 54,000 moderately aware and 27,000 highly aware	5,000 people become low aware, 50,000 moderately aware and 35,000 highly aware on climate change	Awareness raising through CCAG meeting on hygiene and sanitation. Enhanced safe water supply and capacity building will increase resilience and



					Female: 10,000 low aware, 20,000 moderately aware and 15,000 highly aware Male: 20,000 become low aware, 20,000 moderately aware and 5,000 highly resilient	Female: 5000 low aware, 15000 moderately aware and 25000 highly aware Male: 10,000 become low aware, 25,000 moderately aware and 10,000 highly aware	adaptive capacityof targeted people.
Logica	al Framework specific Description	<i>for the project</i> Indicators	Baseline	Targets (mid- term)	Targets (final)	Sources and means of verification	Assumptions
Objective related to GCF RMF Impact Areas	Increased resilience of the poor, marginalized and climate vulnerable communities towards the adverse effects of climate change in flood prone areas of Bangladesh	Increased capacity and awareness of local institutions and communities	0	Institions: 2 slightly increased capacity, 5 moderatel y increased capacity and 3 highly increased capacity Beneficiar ies: 10% slightly increased resilience, 60% moderatel y increased resilience and 15% highly increased resilience	Institution s: 1 slightly increased capacity, 5 moderatel y increased capacity and 4 highly increased capacity. Beneficiar ies: 5% slightly increased resilience, 50% moderatel y increased resilience, and 30% highly	Quarterly monitoring report, evaluation report	Local communities and institutions are enthusiastic to take part in the project interventions



					increased resilience		
		Practiced climate resilient farming	0	15,000 farmers	20,000 farmers	Quarterly monitoring report, evaluation report	Quality seeds of flood resilient varieties are available.
							Goat/sheep rearing technology are available.
							Farmers are well motivated towards flood resilient farming
	Outcome 1: Institutions (IEs) and community groups strengthened capacity on addressing climate change	Increased capacity of NGOs to support households in flood protection and dissemination of adaptation solutions	0	2 slightly increased capacity, 5 moderatel y increased capacity and 3 highly increased capacity	1 slightly increased capacity, 5 moderatel y increased capacity and 4 highly increased capacity	Quarterly monitoring report, evaluation report	NGOs properly follow guidelines provided by PKSF for implementing the project activities
Outcomes		Increased capacity of households to apply climate change adaptation solutions	0	10% slightly increased capacity, 60% moderatel y increased capacity and 15% highly increased capacity	5% slightly increased capacty, 50% moderatel y increased capacity and 30% highly increased capacity	Quarterly monitoring report, evaluation report	No social or religious barriers for women to take part in the project activities
		Utilization of the knowledge from the knowledge products	0	Institution s: 3 slightly, 6 moderatel y and 1 highly	1 slightly, 5 moderatel y and 4 highly utilize knowledg	Quarterly monitoring report, evaluation report	Beneficiaries are well motivated towards climate adaptive



			utilize	e from the		livelihood and
			knowledg	knowledg		development
			e from the	e product		
			e products			
			Beneficiar ies: 20% slightly use, 40%	Beneficiar ies: 30%		
			moderatel y use and 5% highly	use, 30% moderatel y use and		
			knowledg e from knowledg	10% highly use knowledg		
			e products	knowledg e products		
Outcome 2: Protection of homestead from	Reduced economic losses in animal	1.26 million	Reduction of loss by	Reduction of loss by	BBS, Quarterly monitoring	The beneficiaries
adverse effect of flood	husbandry	USD	50% on	90% on	report,	regularly look
		(annual	targeted	targeted	evaluation	after the
		in	ies	ies	report	Infrastructure
		Rangpur				
		division,				
		BBS, 2015)				
	Increased income	Income:	Increased	Increased	BBS. Ouarterly	The
	and nutrition	monthly	Income:	Income:	monitoring	beneficiaries
	uptake of the	BDT.	20%	30%	report,	are growing
	communities due to	3,573			evaluation report	vegetables on the raised
	plinths	(12.5 T US\$)			report	plinths
		(CCCP baseline)				
		Nutrition:				
		4/.91% sickness	Nutrition:	Nutrition:		
		due to	reduced	reduced		
		flood	by 5%	by 10%		
	Increased women's	0	10,000	5,000	Quarterly	Properly
	security during		slighlty	slighlty	monitoring	maintenance
	flood		secured, 20,000	secured, 15,000	report, evaluation	of plinths are ensured
			moderatel	moderatel	report	
			y secured	y secured		
			and 15 000	and 25,000		
			fully	fully		



	Outcome 3: Increased access to safe water and sanitation	Percentage of population in the targeted areas with access to safe water	72.6% (CCCP baseline)	secured from sexual harassme nt during flood 85% of the targeted beneficiar ies	secured from sexual harassmen t during flood 90% of the targeted beneficiar ies	CCCP baseline report, Quarterly monitoring report, evaluation report	The selected beneficiaries adopted the technology and practiced Bangladesh standard of water quality.
		Percentage of population in the targeted areas with access to flood resilient sanitation	9.1% (CCCP baseline)	60% of the targeted beneficiar ies	80% of the targeted beneficiar ies	CCCP baseline report, Quarterly monitoring report, evaluation report	Beneficiaries are well aware about hygiene sanitation Regularly clean the sanitary latrines
	Outcome 4: Access to flood resilient livelihood	Increase in household income in targeted households by practicing GCF funded livelihood technologies	Monthly BDT. 3,573 (42.54 US\$) (CCCP baseline)	30% (increased income)	40% (increased income)	CCCP baseline report, Quarterly monitoring report, evaluation report	Beneficiaries enhance their capacity on flood resilient livestock farming and crop production
	Outputs related to Outcom	ne 1					
puts	Output 1.1 Climate change adaptation groups (CCAG) formed and operationalized	Number of climate change adaptation groups formed and operationalized	0	1,000	1,000	Quarterly monitoring report, evaluation report	The beneficiaries regularly attend the meeting and get the training
Out		Improved capacity of climate change adaption groups related to knowledge management and information dissemination	low	moderate	high	Quarterly monitoring report, evaluation report	The beneficiaries regularly attend the meeting and get the training



	Impact of the meetings on the decision-making process	Low effective	Moderatel y effective	Highly effective	Quarterly monitoring report, evaluation report	The beneficiaries regularly attend the trainings and meetings	
Output 1.2 Preparation of vulnerability assessment and adaptation action plan	Number of vulnerability assessment and adaptation plans	0	1,000	1,000	Quarterly monitoring report, evaluation report	Beneficiaries lively participate in preparing vulnerability assessment and action plan	
	Percentage of vulnerability assessment and adaptation plans used in decision making and planning by households or IEs	0	40%	60%	Quarterly monitoring report, evaluation report	The beneficiaries change their mind-set towards climate resilient development	
Output 1.3 Trainings and workshops on Climate Change conducted for beneficiaries and stakeholders	Use of the information from the trainings and workshops in decision-making and planning at household or policy level	0	40% of the targeted beneficiar iesuse the informati on from the trainings and workshop s	60% of the targeted beneficiar iesuse the informatio n from the trainings and workshop s	Quarterly monitoring report, evaluation report	The beneficiaries change their mind-set towards climate resilient development	
Output 1.4 Preparation and dissemination of knowledge products	Quarterly newsletter published	0	7	14	Quarterly monitoring report, evaluation report, guidelines, formats etc.	AE is supportive to the PMU	
	Number of workshops organized	0	10	20	Quarterly monitoring report, evaluation report, guidelines, formats etc.	AE is supportive to the PMU	



	Lessons learnt published	0	0	1	Delivery of a booklet on the lessons learnt	PMU duly completed the project interventions/a ctivities
Outputs related to Outcon	ne 2	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
Output 2.1 Raised the homesteads above flood level	Number of homesteads constructed	0	6,000	10,000	Quarterly monitoring report, evaluation report,	Union parishad and other local government agencies are favourable to the project interventions
Output 2.2 Re- construction of climate resilient houses	Number of resilient houses constructed	0	6,000	10,000	Quarterly monitoring report, evaluation report,	Union parishad and other local government agencies and communities are favourable to the project interventions
Outputs related to Outcom	ne 3					
Output 3.1 Installation of resilient tube wells	Number of tube- wells installed	0	300	500	Quarterly monitoring report, evaluation report,	Union parishad and other local government agencies and communities are favourable to the project interventions
	Percentage of tube- wells providing water by ensuring national standards	0	60%	80%	Quarterly monitoring report, evaluation report,	Union parishad and other local government agencies and communities are favourable to the project interventions
	Number of beneficiaries using safe water (gender disaggregated)	Male 0 Female 0	Male 3,000 Female 3000	Male 5625 Female 5625	Quarterly monitoring report, evaluation report,	Union parishad and other local government agencies and communities are favourable



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						to the project interventions
	Decrease in water- borne diseases	Annual average 23,374 persons in selected 5 districts become sick due to lack of access to safe water (calculate d from BBS, 2015)	50% of the targeted beneficiar ies	80% of the targeted beneficiar ies	BBS, Quarterly monitoring report, evaluation report	Tube-wells are well maintained by the beneficiaries Distance between sanitary latrines and tube-wells (at least 30 ft.) are maintained Communities use tube-well water for household uses and drinking purpose
Output 3.2 Construction of sanitary latrines	Number of sanitary latrines constructed	0	1600	2,810	Quarterly monitoring report, evaluation report	Local contractors/ve ndors are available for construction of sanitary latrines The implementing entities select experienced contractor/ven dor
	Number of beneficiaries using sanitary latrines (gender disaggregated)	Baseline 0	Targets (mid- term) 3600 female 3600 male	Targets (final) 6,325 female 6,320 male	Quarterly monitoring report, evaluation report	Communities are well aware about hygiene sanitation
Outputs related to Outcon	ne 4	1	1	1	1	



Output 4.1 Rearing of goats/sheep in slatted houses	Number of beneficiaries reared goat/sheep in slatted houses	0	6,000 women beneficiar ies	10,000 women beneficiar ies	Quarterly monitoring report, evaluation report	Onlywomen beneficiaries participates in this activities Women beneficiaries understand the usefulness and technology of slatted houses for goat and sheep
Output 4.2 Cultivation of flood tolerant crops	Increase in crop production	Baseline to be provided in inception report	30% increase	40% increase	Quarterly monitoring report, evaluation report	Flood tolerant seeds are available Farmers are motivated to cultivate flood tolerant crops Farmers enhanced their capacity on flood tolerant crop cultivation
	Number of farmers cultivating flood tolerant rice crops	0	Female 2000 Male 2000	Female 3000 Male 3,000	Quarterly monitoring report, evaluation report	Flood tolerant seeds are available Farmers are motivated to cultivate flood tolerant crops Farmers enhanced their capacity on flood tolerant crop cultivation
	Number of farmers cultivating short duration and disease protective wheat varieties	0	1,500 beneficiar ies	2,000 beneficiar ies	Quarterly monitoring report, evaluation report	Wheat seeds are available
	Number of farmers cultivating vegetables in the sand bars	0	1,500 women beneficiar ies	2,000 women beneficiar ies	Quarterly monitoring report, evaluation report	Beneficiaries are well trained on sand bar vegetable



							cultivation technology	
	Name of activities	Description	I	Inputs				
	Activities related to output 1.1: Climate change adaptation groups (CCAG) formed and operationalized							
	1.1.1 Beneficiary selection and group formation	The project will select with local governmen The field officers of the IEs will require appro- beneficiaries form the	et 90,000 ben nt institutions the IEs will c oval of the lis e PMU of Ex	Human resources, brown papers, ma travel etc.	, Pen, pad, rker, local			
	1.1.2 Prepare Beneficiaries socio- economic profile	After selection, the II door of the selected b economic information project. The PMU wi socio-economic profit GCF relevant staffs b	E field levels beneficiaries n before prov Ill prepare the ile. PMU wil before execut	Human resources, photocopy etc.	paper, internet,			
	1.1.3 Arrange monthly group meetings on climate change issues of CCAG	The PMU will prepar discussion in Bangla. facilitate this content	re content for Relevant fic in the group	Human resources, pen, pad, brown papers, marker, local travel etc.				
	Activities related to Output	ut 1.2: Preparation of	vulnerability	v assessment	and adaptation	on action plans		
S	1.2.1 Carry out participatory vulnerability assessment	Each CCAG will this PVA. Respective field staffs of the IEs will facilitate them to carry out this activity. PMU will provide training to the staffs in this regard.			affs of the v. PMU will	Human resources, brown papers, ma travel etc.	, pen, pad, rker, local	
Activitie	1.2.2 Prepare Local level adaptation action plan using Participatory Rural Appraisal (PRA) tools	Each CCAG will this action plan. Respective field staffs of the IEs will facilitate them to carry out this activity. PMU will provide training to the staffs in this regard.				Human resources, pen, pad, brown papers, marker, local travel etc.		
	Activities related to Output 1.3: Trainings and workshops on Climate Change conducted for Beneficiaries and stakeholders							
	1.3.1 Prepare training manuals and guidelines on climate change issues and project management	The PMU will prepar shared with GCF bef manual will be used to A Bangla version of provide training to th	re this trainin ore finalizing to provide tra this manual v e CCAG me	g manual. It g this manual. iining to the s vill be develo mbers	will be . The staffs of IEs. oped to	Human resources, etc.	papers, internet	
	1.3.2 Prepare training plan and organize training sessions for Beneficiaries	IE's staffs will prepa from the PMU. The I session as per approv monitor the training a	IE's staffs will prepare this training plan and get approval from the PMU. The IE staffs will organize the training session as per approved plan. PMU will physically monitor the training activities on sample basis.		et approval training ally	Human resources, paper, flip charts, venue, internet etc	papers, brown local travel, c.	
	1.3.3 Organize training for IEs staff	PMU will carry out this activity				Human resources, papers, brown pap local travel, venue	, pen, pad, per, flip charts, e, internet etc.	
	1.3.4 Organize exchange visit for CCAG members and IEs staff	PMU will carry out t beneficiaries will tak	his activity. I e part in this	E staffs and activity.		Human resources, papers, brown pap local travel, venue	pen, pad, per, flip charts, e, internet etc.	



1.3.5 Organize	PMU will carry out this activities. Government	Human resources, pen, pad,
workshops and seminars	representatives, development partners, civil society	papers, brown paper, flip charts,
	representatives, IEs etc. will take part in these workshops	local travel, venue, internet etc.
	and seminars	
Activities related to Outp	ut 1.4: Preparation and dissemination of knowledge product	S S
1.4.1 Prepare and	The knowledge products will include newsletters,	Human resource, computer,
disseminate knowledge	evaluation reports, lessons learned documentation,	printer, internet, currier services
products	narrative monitoring reports etc.	etc.
Activities related output 2	2.1 Raised homesteads above flood level	
2.1.1 Raise homestead	Carry out consultations with CCAGs, Select beneficiaries	Human resources including,
plinths in clusters	for homestead raise, raise plinth, turfing for protection of	labour, finance, photocopy etc.
	erosion etc. IEs will receive approval for implementing	
	this activity from EE's PMU.	
Activities related to outpu	<i>ut 2.2 Reconstruction of climate resilient houses</i>	
2.2.1 Provide financial	This activity is fully dependent on the earlier plinth raise	Human resources, labour, finance
support to reconstruct	activity. Once the plinth raise is completed, the	etc.
climate resilient houses	beneficiary will hire labour for house reconstruction. The	
on raised plinth	AE will provide loan to the beneficiaries through the IEs if	
	required for house reconstruction.	
Activities related to output	ut 3.1 Installation of resilient tube wells	<u> </u>
3.1.1 Install tube wells	This activity will depend on raising plinths because all	Human resources, finance, local
	tubewells will be installed on raised plinths. The IE staffs	travel etc.
	in consultation with CCAG members will select	
	appropriate sites for tube wells. The IE will procure the	
	works as per procurement plan approved by the PMU of	
	EE.	
Activities related to output	ut 3.2 Construction of sanitary latrines	
3.2.1 Construct climate	This activity will also depend on raising plinths because	Human resources, finance, local
resilient sanitary latrines	all tube-wells will be installed on raised plinths. The IE	travel etc.
	staffs in consultation with CCAG members will select	
	appropriate beneficiary households for sanitary latrines.	
	The IE will procure the works as per procurement plan	
	approved by the PMU of EE.	
Activities related to outpu	ut 4.1 Rearing of goats/sheep in slatted houses	
4.1.1 Provide support to	IE field officers in consultation with CCAG members will	Human resources, finance, local
rear goat/sheep in	selected interested women for rearing goat/sheep. In	travel etc.
slatted houses	addition, IE will procure works for construction of	
	goat/sheep house as per approved procurement plan	
Activities related to output	<i>ut 4.2 Cultivation of flood tolerant crops</i>	l
4.2.1 Cultivate flood	The IE staffs will select the farmers based on pre-defined	Human resources, seed, fertilizer
	criteria in consultation with CCAG members. The selected	etc.
resilient rice variety		
resilient rice variety BRRI dhan 51 & 52 and	farmers will receive training on flood resilient rice	
Activities related to output 4.2.1 Cultivate flood	selected interested women for rearing goat/sheep. In addition, IE will procure works for construction of goat/sheep house as per approved procurement plan <i>at 4.2 Cultivation of flood tolerant crops</i> The IE staffs will select the farmers based on pre-defined criteria in consultation with CCAG members. The selected	Human resources, seed, fertilize



4.2.2 Cultivate early and disease protective wheat variety BARI 26	The IE staffs will select the farmers based on pre-defined criteria in consultation with CCAG members. The selected farmers will receive training on flood resilient wheat cultivation.	Human resources, seed, fertilizer etc.
4.2.3 Cultivate vegetables in sand bars	The IE staffs will select the farmers based on pre-defined criteria in consultation with CCAG members. The selected farmers will receive training on vegetable cultivation in sand bars.	Human resources, seed, fertilizer etc.

D.4. Arrangements for Monitoring, Reporting and Evaluation (max. 300 words)

- 130. The project will adopt result based monitoring framework. The monitoring under the project will have three functions. First, thorough monitoring by PMU will ensure accountability of the IEs to deliver the Outputs agreed in the project proposal which implies that the resources are used efficiently for the proposed activities. Secondly, monitoring will establish proper documentation of the implementation process and achievements at different levels (Outputs, Outcomes and Impacts). Third, monitoring will help gather learning from the process. In short, the role of accountability is significant in case of Outputs, whereas learning becomes a core issue of monitoring at the Outcome and impacts level achievements.
- 131. The IEs should employ a dedicated Monitoring officer who will report to the Chief Executive or senior official not directly entrusted with the implementation of the project. He/she will implement the Monitoring Framework as envisaged in the project proposal and will produce quarterly activity monitoring reports based on the Activity to Output Monitoring (ATOM) agreed upon. The Monitoring Officer will undertake outcome-level monitoring half-yearly based on agreed Outcome Assessment Sheet (OAS) and impacts-level monitoring annually based on agreed Impact Assessment Sheet (IAS) which were prepared taking indicators of Impacts and Outcomes into account. He/she will post the information in the assigned fields of the IEs and in PKSF server online as well.
- 132. PKSF's senior management personnel will visit the field level activities as part of AE's mission and guide the PMU (PKSF as the Executing Entity). The AE will review evaluation reports and audit reports carried out by individual consultants. It will oversee procurement and financial management of the project, preparation of project completion report and submit the report to the secretariat of GCF. AE will ensure all compliances including gender action plan, ESAP, IP etc. The AE will also review annual budget in order to enhance the efficient use of resources. The AE will monitoring the audit process, fund disbursement, prepare the financial closing report of the project, project closing documents etc. for submission to the secretariat.

E. EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA

E.1. Impact potential (max. 300 words)

E.1.1. Expected tons of	Annual	Click here to enter text. tCO ₂ eq			
carbon dioxide equivalent (t CO_2 eq) to be reduced or avoided (Mitigation only)	Lifetime	Click here to enter text. $tCO_2 eq$			
E.1.2. Expected total number of direct and indirect beneficiaries, disaggregated by gender	Direct	Total 90,000 Male: 45,000 Female: 45,000 (50%)			
	Indirect	Total 100,000 Female: 50,000 (50%) Male: 50,000			



	*For both, Specij	fy the % of female against the total number.
E.1.3. Number of	Direct	Total population 9.84 million
beneficiaries relative to total	Direct	Beneficiaries: 90,000 (Expressed as %)
population	Indirect	100,000 (Expressed as %)

- 133. The proposed project will contribute to increased climate-resilient sustainable development of the investment criteria. The fifth assessment report of the IPCC has defined resilience as "the capacity of social, economic, and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity, and structure, while also maintaining the capacity for adaptation, learning, and transformation." The proposed project has adopted this definition. The flood vulnerable communities will maintain their essential functions due to being resilient by the project interventions. For example, raising homestead plinths above flood level will help the affected community to stay at home, continue their household activities as usual and reduce loss of resources because flood water will no more affect them. In addition, the affected people can grow vegetables even during flood in their homestead which will support them in maintaining their nutrition status. The selected communities will adopt climate resilient agricultural technologies including cultivating flood resilient crop varieties. The whole socio-economic system of the selected community will be resilient to climate change through the project interventions. The resilience of the community will be measured through result based monitoring system (RBM) at a scale from 0-25 where 0-5 will represent 'no resilience' and 21-25 will represent 'highly resilient'. The other three categories are mildly resilient, moderately resilient and resilient. In particular, the project will directly impact 90,000 vulnerable beneficiaries in the selected areas with high level of flood impacts. 50% of the beneficiaries will be female. Among 16000 women members of CCAG, 1600 will be household head. Number of indirect beneficiaries will be about 100,000, mainly other people of the selected villages who will take shelter on the raised plinths, use water from the tube wells and gather knowledge from farming and non-farming activities of the project.
- 134. The project will enhance resilience of 90,000 beneficiaries through protecting their homesteads, livelihoods and agriculture system from the adverse effects of climate change. The selected participants will continue their daily lives business as usual. They will have access to safe drinking and sanitation facilities throughout the year including emergency situation. They will not require to take shelter on roads or flood shelters rather they will stay at home. The women will be more secure because of staying at home during emergency situation.
- 135. The proposed project will promote climate adaptive livelihood options which are women friendly. The women will get involve in goat/sheep rearing in slatted house and climate resilient cultivar. They will receive necessary training on climate change and improve management system of these livelihood technologies. They will increase their income which will empower them and help them playing role in making decision for their families. 10,000 women beneficiaries and their family members will be involved in these activities.

E.2. Paradigm shift potential (max. 300 words)

136. The paradigm shift objective of the project is to increased climate resilient sustainable development. PKSF has a strong NGO network from national to local level. Currently 278 partner ogranizations (POs) are working throughout the country with 9,945 branch offices. These orgnizations will learn good practices and replicate in their own working areas. As these organizations operate credit programme at the community level, they will arrange finance by themselves and/or through other programme of PKSF for implementing these activities beyond project period. PKSF is also mainstreaming climate change in its



core programmes. Besides, the project will document and disseminate best practices at national and subnational levels. As a government owned company and representation of government representatives in the governing body of PKSF will also influence the government policy. This will help incorporating these technologies and practices in national policy and strategy documents.

- 137. The project will increase capacity of 10 organizations (IEs) on addressing climate change issues at the local level. In addition, 20,000 CCAG members representing 20,000 HHs having 90,000 beneficiaries (project's direct beneficiaries) will gain knowledge and understanding on identifying climate change problems and required adaptation options through the project interventions. Most of the CCAG members (80%) will be women (one representative from each HH will be selected for CCAG). They will learn about climate change and transfer this knowledge to their children which will have long term impacts on the society. Thus, the project will develop formal and informal institutions in addressing climate change in the long run. The project will also enhance resilience of 20,000 climate vulnerable poor and ultra-poor households including women headed households by implementing climate adaptive technologies and practices. Raising homestead plinths of 10,000 households (45,000 beneficiaries) will protect their household resources including poultry and livestock from flood, continue their daily necessary activities as usual, increase their nutrition status by facilitating vegetable and fruit cultivation round the year, reduce health risks derived from flood water, reduce sexual harassment of adolescent girls and women during flood, increase social bonding etc. Reconstruction of climate resilient houses for 10,000 HHs will reduce their recurrent cost of house repair due to flood each year which will in turn increase income and savings. The houses and plinths will be equipped with flood resilient tube wells and sanitary latrines. 11,250 beneficiaries directly and more than 11,000 people indirectly will be benefited from flood resilient tube wells. They will significantly reduce water borne diseases due to floods including diarrhea, dysentery etc. flood resilient sanitary latrines for 2810 households will reduce water pollution as well as Similarly. ensure healthy WASH practice. This will in turn reduce treatment cost as well as improve working capacity of beneficiaries. Slatted houses for goat/sheep rearing by 10,000 women (1000 women heads) will help them economically empowered and influence in decision making of the households. They will know how to protect livestock from floods and other climatic stresses through improved management system. In addition, the project will promote flood resilient crop production through 10,000 farmers. This will reduce their crop loss due to floods and other climate change related stresses. The other farmers will learn from the project activities and practice by their own. Thus the production system will be resilient to climate change induced floods. It is expected that local institutions and community people of the project area will be sensitized towards mainstreaming climate change in their lives and livelihoods.
- 138. One of the major expected paradigm shift is to change the mind-set of the community people towards climate resilient development from conventional development. This will be achieved through establishment of community mechanism. Formation of climate change action group (CCAG) under component 1 is the entry point of developing such community mechanism. CCAGs will assess impacts and vulnerabilities and accordingly prepare their future plan through on the job training process. They will discuss climate change issues regularly in the monthly meetings. It is expected that regular exercise of climate change oriented activities for 4 years will help them addressing climate change in the long run. In addition, the visible impacts of the project activities will works as driving force to change the existing mind-set of the vulnerable community.
- 139. The project will enhance capacity of 10 organizations (IEs) working at the community level in addressing climate change adaptation projects. These organizations will gradually integrate climate change issues in their credit programs and other development sectors.



- 140. The proposed project will develop climate resilient homesteads through raising homestead plinths, climate resilient hygiene sanitation system and safe drinking water. Cluster based homestead raise under outcome 2 will bring another paradigm shift because the affected people will no more leave their homesteads and household resources during flood which they do at present. The social security of the affected woman will be enhanced due to staying at home during emergency situation. In addition, the affected people will continue their daily necessary activities in the flooding situation. Another significant change will occur due to raising homestead plinths. At present, the flood affected community cannot cultivate vegetable round the year due to flood. Raising homestead plinths will create the opportunity of the affected community to grow vegetable round the year. Besides, the project will promote climate adaptive agriculture and livelihood and enhance capacity of the affected communities and partner organizations. It is expected that the people other than the project participants will learn about the benefits of the project interventions through demonstrations and accordingly take own initiatives or through community organization/local government institutions to reduce impacts of climate change on their lives and livelihoods.
- 141. In addition, the project will document the lessons of the project and disseminate among different stakeholders including policy makers and affected communities. The local government agencies and NGOs will be coordinated during implementation of the project interventions to sensitize them about the outcome and impacts of the project. Besides, the IEs have long term presence in the community. The IEs have ability to long term finance (grant/credit) to the climate resilient livelihoods and enterprises that would be effective for scaling up the project interventions.
- 142. The project will reduce the vulnerabilities through various adaptation activities, practices and capacity building initiatives which will ultimate increase resilience of the vulnerable community.

E.3. Sustainable development (max. 300 words)

- 143. Economic co-benefits
 - The raised plinths will reduce the damage to houses and household resources and hence reduce recurrent reconstruction cost of the flood vulnerable communities.
 - The cluster dweller can grow vegetable on the raised plinths round the year. It saves cost of vegetables and fruits.
 - The cluster dweller can continue household based economic activities like goat/sheep rearingetc. as usual which helps them earning cash income

144. Social co-benefits

- Improve health and nutritional status by increased consumption of quality food and by ensuring the
- Sanitation facility.
- Other flood affected people can take shelter on the raised plinths during flood
- Improve access to education and decrease dropout rate at primary education
- Reduced loss of lives and assets due to flood.
- Reduced the expense of other safety net programs.
- 145. Environmental co-benefits
 - Tree plantation on the raised homestead will increase biodiversity in the project area
 - Pit system of pumpkin cultivation will improve microorganism in the soil

146. Gender-sensitive development impact



- Increase economic empowerment of woman through income generation activities of the project.
- Increase leadership and learning skill of woman by receiving training, participation in different training and workshop.
- Increase acceptance in family by creation employment opportunity for woman.
- Increase decision making facility within the family.
- Stop violence against woman.

E.4. Needs of recipient(max. 300 words)

- 147. Bangladesh ranked sixth among the world's top 10 countries most affected by extreme weather events in the last 20 years, according to the Global Climate Risk Index by think-tank German watch. On an average, a total of 680 people died in 185 climatic events in Bangladesh within the period of 1996 to 2015, the German watch report said. As a result, the country lost 0.7324% of its GDP.
- 148. According to the 2015 Climate Change Vulnerability Index, Bangladesh's economy is more at risk to climate change than any country. With a per capita gross domestic product, or GDP, of about \$1,220, the economic losses in Bangladesh over the past 40 years were at an estimated \$12 billion, depressing GDP annually by 0.5 to 1 percent.
- 149. Two-thirds of the country is less than five meters above sea level, and floods increasingly inundate homes, destroy farm production, close businesses, and shut down public infrastructure. The selected 5 districts are most vulnerable to flood.
- 150. Bangladesh is a LDC with high demand of grants to address the climate change vulnerability. Bangladesh government tries to respond to disaster risks in related all sector. Bangladesh Government developed Bangladesh Climate Change Strategy and Action Plan (BCCSAP), National Adaptation Programme of Action (NAPA) etc. to address climate change. The country is currently preparing National Adaptation Plan (NAP). Moreover, the government integrated climate change in all other development strategies including Perspective Plan of Bangladesh 2010-2021, 7th five years' plan, Country Investment Plan (CIP), National Determined contribution (NDC) etc. The government has estimated that implementation of the NDC will require Us\$ 42 billion from 2015 to 2030. So, GCF contribution to this project will fully support in building resilience to climate change of the climate vulnerable people of the country.
- 151. The project has selected two climate hotspot areas of the country i.e. the northern flood affected char areas. 12.29% people of the selected 5 districts are particularly vulnerable to climate change induced flood. They are mainly poor households living in low-lying char areas and subject to regular inundation by floods. These people mainly depend on subsistence agriculture and agriculture wage labour. They have lack of financial capacity to make their houses and production systems resilient enough against the existing impacts of climate change induced flood. Hence, external support is necessary to increase their resilience.
- 152. The project will provide technology and information to increase the capacity of the vulnerable communities. The technologies that have been chosen are proven and many people are already practicing in other areas of the country. So, the selected communities will easily adopt these technologies and continue practices in the long run. Besides, capacity building training and group meetings on climate change issues will enhance their understanding on climate change impacts on their lives and livelihoods. They will consider these issues in their future activities. In addition, community level adaptation action plan (to be prepared during implementation as part of capacity building training) will help them taking future initiatives in addressing climate change. Thus the community will continue climate change adaptation activities in the long run.

E.5. Country ownership(max. 500 words)

Country ownership

153. The project will address the Bangladesh Climate Change Strategy and Action Plan (BCCSAP), 2009 and one of its pillars -- food security, social protection and health. It is the first among the six pillars of the



BCCSAP. The pillar has nine programmes of which seven are directly related to the project interventions. The second pillar--Comprehensive Disaster Management. The pillar has four programmes of which three are directly related to the project interventions. The third pillars—Infrastructure. The pillar has eight programmes of which three are directly related to the project interventions. The forth pillar—Research and knowledge Management has seven programme of which two are directly related to the project interventions. The fifth pillar—Mitigation and low Carbon Development—has ten programmes of which four are directly related to the project interventions. The six pillars— Capacity Building and Institutional Strengthening has six programmes of which three are directly related to the project interventions.

- 154. The project will address the Bangladesh National Adaptation Programme of Action (NAPA). The National Adaptation Programme of Action (NAPA) for Bangladesh has been prepared by the Ministry of Environment and Forest (MOEF), Government of the People's Republic of Bangladesh as a response to the decision of the Seventh Session of the Conference of the Parties (COP-7) of the United Nations Framework Convention on Climate Change (UNFCCC). NAPA prepared list of priority activities to mitigate impact of climate change and most of the activities of proposed project qualify with NAPA listed activities. NAPA also developed 45 project concept notes and the nature of activity of the proposed project is partially same with all concept notes. The proposed project directly similar with-- Project No. 4. Climate change and adaptation information dissemination to vulnerable community for emergency preparedness measures and awareness rising on enhanced climatic disasters, Project No. 6. Mainstreaming adaptation to climate change into policies and programmes in different sectors (focusing on disaster management, water, agriculture, health and industry).Project No. 10 Title: Promotion of research on drought, flood and saline tolerant varieties of crops to facilitate adaptation in future, and Project No. 12 Title: Adaptation to agriculture systems in areas prone to enhanced flash flooding–North East and Central Region.
- 155. Government of Bangladesh under the leadership of Prime Minister Sheikh Hasina adopted the Vision 2021. The Vision 2021 and the associated Perspective Plan 2010-2021 have set solid development targets for Bangladesh by the end of 2021. The vision of the perspective plan is to take effective measures to protect Bangladesh from the adverse effects of climate change and global warming. The plan targets to take all possible steps to protect the vulnerable people from natural calamities. Steps will also be taken to make Bangladesh an ecologically attractive place and to promote tourism in this regard. The objectives of the proposed project comply with that of Vision 2021.
- 156. This project is strongly aligned with national policies including: Seventh Five Year plan of Bangladesh government, the Bangladesh National Adaptation Programme of Action (NAPA) and Bangladesh Climate Change Strategies and Action Plan (BCCSAP), 2009, National Plan for Disaster Management (NPDM), and Sixth Five Year Plan (SFYP) of GOB boldly articulate the country's commitment to addressing climate change and equitable development, while the National Plan for Disaster Management (NPDM) 2008-2015 addresses Disaster Risk Reduction (DRR) and climate change adaptation (CCA) comprehensively in all development plans, programme and policies. The forthcoming Seventh Five Year Plan (2016-20) put emphasis on Accelerating Growth, Empowering Every Citizen.

Capacity of the Executing Entity

157. PKSF will play role of Executing Entity for the project. It was established by the Government of Bangladesh in 1990 and registered under the Companies Act 1913/1994 as a "not for profit" organization with the vision of "A Bangladesh where poverty has been eradicated; ruling development and governance paradigm in inclusive, people-centered, equitable and sustainable; and all citizens live health, appropriately, educated and empowered and humanly dignified life".



158. PKSF provides a wide range of development services including financial, health, educational, capacity development, technology transfer and business development services to disadvantaged segments of the society through appropriate pro-poor institutions. Mobilization of poor people and provision of necessary training with appropriate financial supports have been the initial and continuous interventions. PKSF has a significant pro-poor strategy that looks at poverty alleviation from a holistic way. PKSF constantly redefines and redesigns its interventions, taking into account the concerns and needs of the poor with the changes of times. PKSF believes that appropriate financial support is not the only answer to alleviate poverty and it cannot be achieved with one component only. This requires addressing the needs of education, training, and healthcare, access to resources and equal opportunities for all. Hence PKSF developed 9 core programmes which include inclusive financial services, people centered holistic development programme, enterprise development programme, social protection programme, capacity building programmes, advocacy and knowledge management, research and development (R&D) and Environment and Climate Change programmes. PKSF has established Environment and Climate Change Unit for addressing climate change in Bangladesh. The Community Climate Change Project (CCCP) implemented by PKSF has been highly appreciated by participating donors, the World Bank, the Government of Bangladesh and the civil society and media of the country. The project has successfully established financial mechanism for channeling climate change fund in LDC country like Bangladesh.

159. Quality of Management Team

- a) The top authority of the PKSF is the General Body. The General Body provides the overall policy directives to the PKSF management for undertaking meaningful activities in line with its objective of alleviating poverty. The Body also approves the annual budget and the audited accounts of the organization. Besides, it reviews the annual report presented by the Governing Body of the organization. The General Body meets twice a year. The Members of the General Body selected from government agency, voluntary organisation or private individuals and partner organisation having a record of service in activities of poverty alleviation and income generation and/or are interest on such activities. The Present Chairman of the PKSF is Dr.QaziKholiquzzaman Ahmad, one of the world renowned Economists and Climate Change Specialist. The Managing Director of the PKSF who is also a Member of the General Body is the former Chief Secretary of the Government of Bangladesh. So, from the top, the Foundation is led by high profile officials.
- b) The Governing Body, subject to the general control and supervision of the General Body, works to pursue and carry out the goals of the organization. It holds the financial control of the organization, including approval of projects and awarding grants, donations, loans or any other financial assistance to the Partner Organizations (POs). The Governing Body consists of seven members who meet every two months. The Governing Body is composed of i) The Chairman of the Foundation, ii) The Managing Director of the Foundation, iii) Two members from the civil society nominated by government having track record in activities of poverty alleviation and employment generation and iv) Three members representing partner organisations having a record of service in activities of poverty alleviation and employment generation.
- c) PKSF management is essentially responsible to look after the functions of the organization as per the projected activities. It looks after the day-to-day routine activities so that every move is in place to realise the vision and mission of the Foundation.

I) Senior Management Team: The Senior Management Team is comprised of 11 members. The Team is headed by the Managing Director. The other members of the committee are the Deputy Managing Director



(Programme), the Deputy Managing Director (Admin), the Deputy Managing Director (Finance), the Director (Research), Director (Environment and Climate Change) and nine General Managers. The Senior Management Team meets 3-4 times a year. In the meetings, all the functional issues are discussed and take decisions according to the policy directives prepared by the General Body and the Governing Body. The Team scrutinises all the activities to identify whether these are on the right track. It also evaluates the progress based on visible performance.

ii) Panel Leaders' Forum: The Panel Leaders' Forum is comprised of 13 Members and headed by the General Manager (Programme). The members of this committee are a Deputy General Manager (Programme); an Assistant General Manager (Programme); and eight panel leaders of Programme Division of the PKSF. The Panel Leaders' Forum meets at least six times a year. The Forum discusses and compares the panel-wise performance in light of the targets set especially for loan disbursement among the Partner Organizations (POs).

iii) General Coordination Meeting: One of the best and effective tools for monitoring and evaluation of the management plans is to arrange a General Coordination Meeting for all. The meeting is arranged every two months and the Managing Director chairs it. All the officials responsible for different activities of the Foundation attend the meeting. The meeting discusses and compares all the activities of the Foundation in light of the targets mentioned in the Management Plan.

160. Overall strategies

The PKSF works through its Partner Organizations (POs). It has developed a set of guiding policies, rules and manuals for its operations. The overall strategies are describe in detailed:

- 161. **The role of the General Body:** The PKSF General Body provides overall policy directives to the PKSF management in order to undertake meaningful activities to fulfill its objective of alleviating poverty of the underprivileged people through employment generation. It oversees and advises on measures and initiatives that seek to establish and ensure the human dignity of the poor. The general body approves the annual budget and the audited accounts of the organization. It also reviews the annual report presented by the Governing Body of PKSF. The General Body meets twice a year: the Annual General Meeting (AGM) would preferably be held during the month of December and the other general meeting during the month of June. The General body may consist of a maximum of 25 members. Out of them, the Government of Bangladesh nominates a maximum of 15 members, including the Chairman. The Chairman must not be in the service of the republic. The General Body, in the AGM, nominates the remaining 10 members from the PKSF's Partner Organizations (POs)/ and or Private individuals. As of January 2017, there were 22 members in the General Body.
- 162. **The role of the Governing Body:** The Governing Body, subject to the general control and supervision of the General Body, holds the responsibility to pursue and carry out the goals of the organization. The Governing body holds the financial control of PKSF, including approval of projects and making grants, donations, loans or other financial assistance to the Partners Organizations (POs). The Governing Body consists of 7 members. The Government of Bangladesh nominates the Chairman and two other members from amongst individuals having a record of service in activities of poverty alleviation and inclusive development and /or interest in such activities. The General Body in its AGM elects three other member representing the Partner Organizations and /or individuals having demonstrated contribution in the development sector. The Governing Body in consultation of the Government appoints the managing director who is the chief executive officer of PKSF and an ex-Officio member of the Governing Body and the General Body of PKSF. The Governing Body holds at least six regular meetings in every year. Sixth Governing Body Meetings were held in 2016.



- 163. **The role of the Chairman:** The Chairman of PKSF sees that the affairs of PKSF are run efficiently and in accordance with the provisions of the Memorandum and Articles of Association of PKSF. He presides the meetings of the General Body and the Governing Body of PKSF.
- 164. **Duties and Responsibilities of the Managing Director:** The Managing Director is responsible for the day to day management of PKSF. He oversees and supervises all activities related to programme implementation and financial services. The Managing Director calls for different types of periodic meetings including Senior Management Meeting, Loan Committee Meetings, Panel Leaders Forum meeting, bi-monthly general coordination meetings etc. for planning and assessment of achievements. The respective officers present detailed about each projects and programmes including challenges and way forward. The Managing Director provides necessary guidance and suggestions to the projects or programmes for proper implementation and achievement of the goal and objectives of the PKSF.
- 165. **Monitoring the Programme related Activities of PKSF:** PKSF basically provides collateral free loans only to the enlisted Partner Organizations. So monitoring plays a crucial role to minimize the financial risk of PKSF through ensuring effective fund management for the credit and savings programs of the POs and also serves as a hedge against the financial loss through loan delinquency.

166. In PKSF, monitoring of activities of POs is done at three levels:

- By Operation Division of PKSF.
- By Internal Audit Division of PKSF
- By External Auditors of PKSF.

Monitoring accomplished by Operation Division of PKSF:

- 167. PKSF's Monitoring system is the continuous assessment of its different program interventions. It takes place at all levels of management and uses both formal reporting and informal communications. The Monitoring system allows on-site monitoring once every three monthly and off-site monitoring using different reporting systems of PKSF.
- 168. Generally, Monitoring is done through following systems such as

1. On-site Field Monitoring

- 2. Off-site Monitoring: Quarterly Management Information System (MIS) Report
- 169. The on-site monitoring is conducted once in every three month for each Partner Organizations by the designated officials. The on-site monitoring report is one of the crucial monitoring systems of PKSF which is done in customized systematic format. This report is subjective in nature and provides valuable insight about the PKSF's programme at the grass root level.
- 170. The quarterly MIS evaluation is also conducted and is based on monthly data of the POs which is accumulated over time and evaluated after consolidating to assess the trend and progress of POs activities. Mainly four types of monitoring is done, such as
- 171. Progress Monitoring: In this monitoring system, progress monitoring generally refers to the activity monitoring of the project.
- 172. Process Monitoring: This justifies the delivery mechanism of the project and monitors whether the deliverables are being supplied properly.
- 173. Budget Monitoring: Budget monitoring refers to proper book keeping of the account of the project. This ensures the transparency in financial matters of the project.
- 174. Impact Monitoring: The overall, programme is monitored through impact monitoring. This monitoring is conducted by the research team of PKSF. Sometimes PKSF evaluated its program impact through outside researchers.



Financial Profile:

175. PKSF works through Partner Organizations (POs). These POs are registered as NGOs and CBOs (Community Based Organizations). Presently PKSF directly works with 278 POs which has total 13.24 million members of them 91.07% are women. The POs all together have more than 9,000 branches throughout the country. In FY 2017-18, PKSF disbursed US\$ 33 billion to its POs. The organized members and borrowers of PO of PKSF are thoughtfully guided and advised so that they can make the best use of the opportunities made available by PKSF to enhance their resources, build up their capacity protect the members from sudden economic shocks and to generate their self-prospective employment.

Implementing Entities of the project:

- 176. The selected Partner Organizations (POs) of PKSF are the Implementing Entities of the project. PKSF has developed credential development organizations at the grass roots level for poverty reduction through people centered equitable and sustainable development. These organizations have long experience in various development activities including climate change and disaster management issues. These organizations provide a wide range of development services including financial, health, educational, capacity development, technology transfer and business development services to disadvantaged segments of the society. Mobilization of poor people and provision of necessary training with appropriate financial supports have been the initial and continuous interventions of the organizations. Currently PKSF has 278 partner organizations throughout the country. Among these organizations, 10 Implementing Entities will be selected for this project. The selection criteria will include:
 - a) Permanent existence of the organizations in the project areas
 - b) At least five years of experience in implementing climate change related projects or programmes
 - c) A good track record of financial transection (At least BDT 1 crore annually for the last three years)
 - d) Must be extra ordinary, excellent or at leastgood as per PKSF's assessment using defined assessment criteria which include financial efficiency, economic efficiency, operational efficiency, growth indicators, financial strength & risk management, accounting & internal control system, social performance, human capacity and governance.
 - e) Valid legal documents including registration
 - f) Organizations will be ineligible on the grounds of involvement in Money Laundering and Terrorist Financing.
- 177. It is to be noted that PKSF has set criteria for periodic evaluation of the performance of its partner organizations. The criteria includes financial efficiency, economic efficiency, operational efficiency, growth indicators, financial strength & risk management, accounting & internal control system, social performance, human capacity and governance. Each of the criteria has several indicators to assess performance of the POs. Based on the performance criteria, the organizations area categorized as extra ordinary, excellent, good, average, and sub-standard and requires special attention (RSA). The project will select the implementing entities among the first three categories of organizations. The selected partner organizations will recruit project staffs for implementing activities at the field level. PKSF will develop project implementation manual and guidelines. PKSF will ensure completion of AML/CFT due-diligence with satisfactory results in the selection process for IEs and Service Providers.

E.6. Efficiency and effectiveness (max. 1 page)					
E.6.1. Estimated cost per t CO ₂ eq, defined as total investment cost /	(a) Total project financing	US\$			



expected lifetime emission	(b) Requested GCF amount	US\$
reductions (Mitigation only)	(c) Expected lifetime emission reductions	tCO ₂ eq
	(d) Estimated cost per tCO ₂ eq (d = a / c)	US\$/ tCO2eq
	(e) Estimated GCF cost per tCO ₂ eqremoved (e = b / c)	US\$/ tCO2eq
	(f) Total finance leveraged	US\$
E.6.2. Expected volume of finance	(g) Public source finance leveraged	US\$
project/programme and as a result	(h) Private source finance leveraged	US\$
of the Fund's financing,	(i) Total Leverage ratio (i = f / b)	
disaggregated by public and private sources (Mitigation only)	(j) Public source leverage ratio (j = g / b)	
printing sources (ninigation only)	(k) Private source leverage ratio $(k = h / b)$	

- 178. The proposed project is the extension of the earlier Community Climate Change Project (CCCP) implemented by PKSF since 2012 to 2016. The unit price of each activity are considered based on the cost of CCCP. Unit rate is considered 10-20% higher than CCCP considering 6% inflation each year. It is expected that the estimated budget will be adequate to successfully implement the project activities in achieving goal of the project. But the exchange rate and inflation may affect the activity cost. The budget has provision of contingency fund of USD 250000 for meeting any challenges or barriers. Besides, provision of inter-component budget revision will be adopted in the financial management system which was adopted during CCCP.
- 179. The proposed project relies on grant finance as (a) The proposed interventions will benefit flood affected vulnerable people who leave their home during the flood and affected diarrheal diseases and vector-borne diseases (b) Make resilient the people and community against flood through ensuringflood resilient livelihood, sanitation and water (C) the activities will not generate any revenue, no provision was made to refund the money to GCF. According to the nature of activities the project is financially sustained as well as economically sound. Because plinth raising helps to reduce shock of flood affected people. Loan will be available for the beneficiaries for the support to maintain the housing/shelter.
- 180. As the project will develop climate resilient homestead and support climate-adaptive livelihoods to the vulnerable people, it will be mainly grant based. The grant will be used for developing climate resilient homesteads which include raising homestead plinth above flood levels, raised and protected community grounds for crop threshing and drying etc. The grant will also be used in providing technology and training for promoting climate adaptive livelihoods including goat/sheep rearing in slatted houses. In addition, grant will be used for demonstrating climate resilient cropping pattern in char lands. Besides, it will be used to enhance access to safe drinking water and sanitation which includes installation of sanitary latrines and tube wells. Furthermore, the grant will cover capacity building and knowledge management and project management cost. Loan will be provided to house repairing and goat rearing income generating activity.
- 181. The project will have four outcomes i.e. 1) Institutions (Implementing Entities) and community groups strengthened capacity on addressing climate change, 2) Protection of homestead from adverse effect of flood, 3) Increased access to safe water and sanitation and 4) Access to flood resilient livelihood. The total amount of outcome 1 is USD 1,006,600 that is 8% of the total budget. It is to be noted that this outcome is very effective for climate vulnerable people of the selected areas. Project will provide financial support as loan for purchasing goat rearing and house repairing which is estimated USD 3.3 million which is 25% of the total estimated budget. The project management cost of the proposed project is estimated USD 485,300 which is 4% of the total estimated budget and 5% of GCF proceed.



Intervention Type Effectiveness and Cause	Intervention Type Effectiveness and Cause
	Household Level Interventions
Household Plinth Raising (12796 households)	Effectiveness: High Cause: This is traditional adaptation practice in flood prone areas has successfully adopted by CCCP with necessary modification. In the salinity and flood risk zones, water inundates houses. Household plinth rising have enabled the households in salinity and flood risk zones to stay at their houses during flood and high tide. This has been implemented by CCCP following cluster approach that makes it more effective. This has enabled the households to produce vegetables in courtyards and also served as flood shelter for people and livestock.
Installation of Tube well (deep and Shallow) (Installed 4066 tube wells)	Effectiveness: High Cause: Drinking water is a major problem in all climate risk zones. About 70% of the beneficiaries of CCCP have been supported through tube-well facilities found in the sample survey. Installation of tube-wells has increased access to safe drinking water for CCCP beneficiary households. This has become further effective as tube wells were provided following cluster based approach where at least 4 families are using and maintaining a tube- well. All the tube-wells have been installed above maximum flood level and also considered continuous availability of water from the tube-well. Installation of tube-well also considered utilization of used water from the storage tank in the vegetable garden especially in drought area. The project has provided one tube-well among 3-20 families based on local situation.
Sanitary Latrine (6615 latrine constructed)	Effectiveness: Medium Cause: Clean drinking water becomes scarce during flood because deep tube-well water cannot be collected due to submerged condition of the affected areas. Tube-well platform have secured safe drinking water in flood risk zone. The household survey found construction of tube-well platforms in all the three risk zones. 15% of the survey households have got support for tube-well platform. Hand tube-wells are major source of drinking water for rural people. In the past huge number of hand tube-wells were installed in the locality by different agencies but most of those were not installed considering flood level and in maximum cases no proper tube-well platform constructed or the quality of the platform was not up to the mark. Construction of tube-well platform can be considered appropriate adaptation option taken by the CCCP project. This is particularly effective in flood risk zone. This is contributing towards improved health and hygiene for the beneficiaries through protecting the ground water from being contaminated.
Income generation interventions	Effectiveness: High Cause: Covered over 28000 beneficiaries of the project through different income generation activities directly contributing to increased family income, household food security and increased adaptive capacity. IGAs were selected carefully considering experience of the beneficiaries on the specific IGA. Beneficiaries contributed more in the initial capital which made these IGAs successful.

182. Efficiency and effectiveness of CCCP carried out by independent consultant during final evaluation:

Economic and Financial Justification

183. The economic loss of the targetedbeneficiaries without the project is significant particularly for the poor and vulnerable community. The flood affected community faces multidimensional loss during flood as experienced during implementation of CCCP. A household living in riverine char areas of the selected



districts would cost BDT. 50,000-60,000 (US\$600-700) annually, if affected by flood (estimated in consultation with flood affected people). This cost includes house repair, crop and vegetable damage, loss of livestock resources, loss of income, transport cost for going to and returning from shelter, diseases etc. This cost would be double if the household is affected twice in a year. The project will one time invest around US\$420 (BDT 35,280) for raising homestead plinths of a HH. The duration of the lifeline of the raised plinth is estimated 10 years. So, it is expected that it will save around US\$600 to US\$700 with one time investment of US\$420.

Outcome wise fund distribution

184. Outcome 1: Institutions (Implementing Entities) and community groups strengthened capacity on addressing climate change

This is an important outcome to achieve the goal of the project. This outcome will enhance knowledge and awareness of the community on climate change impacts and vulnerabilities. This will motivate them integrating climate change issues in their lives and livelihoods. The project estimated that GCF will provide 8% and PKSF will contribute 2% of the GCF proceed.

185. Outcome 2: Protection of homestead from adverse effect of flood

The estimated cost for implementing this outcome is USD 5,694,000 which is 59% of the GCF budget or 43% of the total budget. This outcome will play major role in increasing resilience of the target community. Because, raising cluster based homestead will protect their homesteads. The cluster dwellers will not require to leave their houses during flood. In contrast, they can continue their household activities as usual. Unless protecting their homesteads, the only income earning activities would not improve their livelihood because they have to spend most of their income in repairing their houses due to these shocks.

186. Outcome 3: Increased access to safe water and sanitation

The estimated amount for implementing this outcome is USD 1,535,600 which is 12% of the total estimated budget. Safe water and hygiene sanitation are essential for flood vulnerable community because they severely affected by various water-borne diseases due to lack of safe drinking water and damage to sanitary latrines. These latrines and tube wells will be installed only on the raised clusters under this project. This outcome will help them improve their health and well-being.

187. Outcome 4: Access to flood resilient livelihood

The livelihoods of the small and marginal farmers and disadvantaged women are highly vulnerable to flood. The project will promote various climate adaptive livelihoods including goat/sheep rearing in slatted house, climate resilient crop production etc. The estimated cost for implementing this component is USD 4,354,240 which is 33% of the total budget.

188. The proposed project is designed based on lessons learned and best practices from previous project implemented by PKSF i.e. CCCP. Slatted housing system of goat/sheep rearing is an innovative adaptation activity in Bangladesh. The PKSF has successfully piloted the slatted housing system of goat rearing in *Chuadanga* district first time in Bangladesh with one of the partner organization named Wave Foundation (WF). After successful piloting, PKSF is now disseminating the technology throughout the country.

189. Cluster based homestead plinth raise is another sustainable mechanism of plinth raise due to diversified uses as experienced during CCCP. Beneficiaries can produce year round vegetable on raised plinth and
during flood the affected people can take shelter on the raised plinth. These plinths are enriched with tube wells and improved sanitary latrines which are flood free.

190. The proposed project will demonstrate cropping pattern instead of a single crop in the climate vulnerable areas. Cropping pattern will consider choice of crop varieties, cropping season, life-cycle of crop, timing of disasters, land-type and soil quality etc.

F.ANNEXES		
F.1. Mandatory annexes		
\boxtimes	Annex 1	NDA No-objection Letter(s)
\boxtimes	Annex 2	Pre-feasibility study (including Theory of Change, project/programme-level log frame, timetable, map, and summary of stakeholder consultation and engagement plan)
\boxtimes	Annex 3 A Annex 3 B	Budget plan that provides breakdown by type of expense Detailed breakdown of AE cost
\boxtimes	Annex 4	Gender assessment and action plan
\boxtimes	Annex 5	Co-financing commitment letter
\boxtimes	Annex 6	Term sheet and evidence of internal approval
\boxtimes	Annex 7	Risk assessment and management
\boxtimes	Annex 8	Procurement plan
F.2. Other annexes to be submitted when applicable/requested		
	Annex 9	Economic and/or financial analysis (mandatory for private-sector proposals)
\boxtimes	Annex 10	Legal due diligence (regulation, taxation and insurance)
\boxtimes	Annex 11	Appraisal, due diligence or evaluation report for proposals based on up-scaling or replicating a pilot project
\boxtimes	Annex 12	Environmental and Social Action Plan (ESAP)
\boxtimes	Annex 13	Map of proposed project area
\boxtimes	Annex 14	Example of participatory vulnerability assessment (PVA)

* Please note that a funding proposal will be considered complete only upon receipt of all the applicable supporting documents.